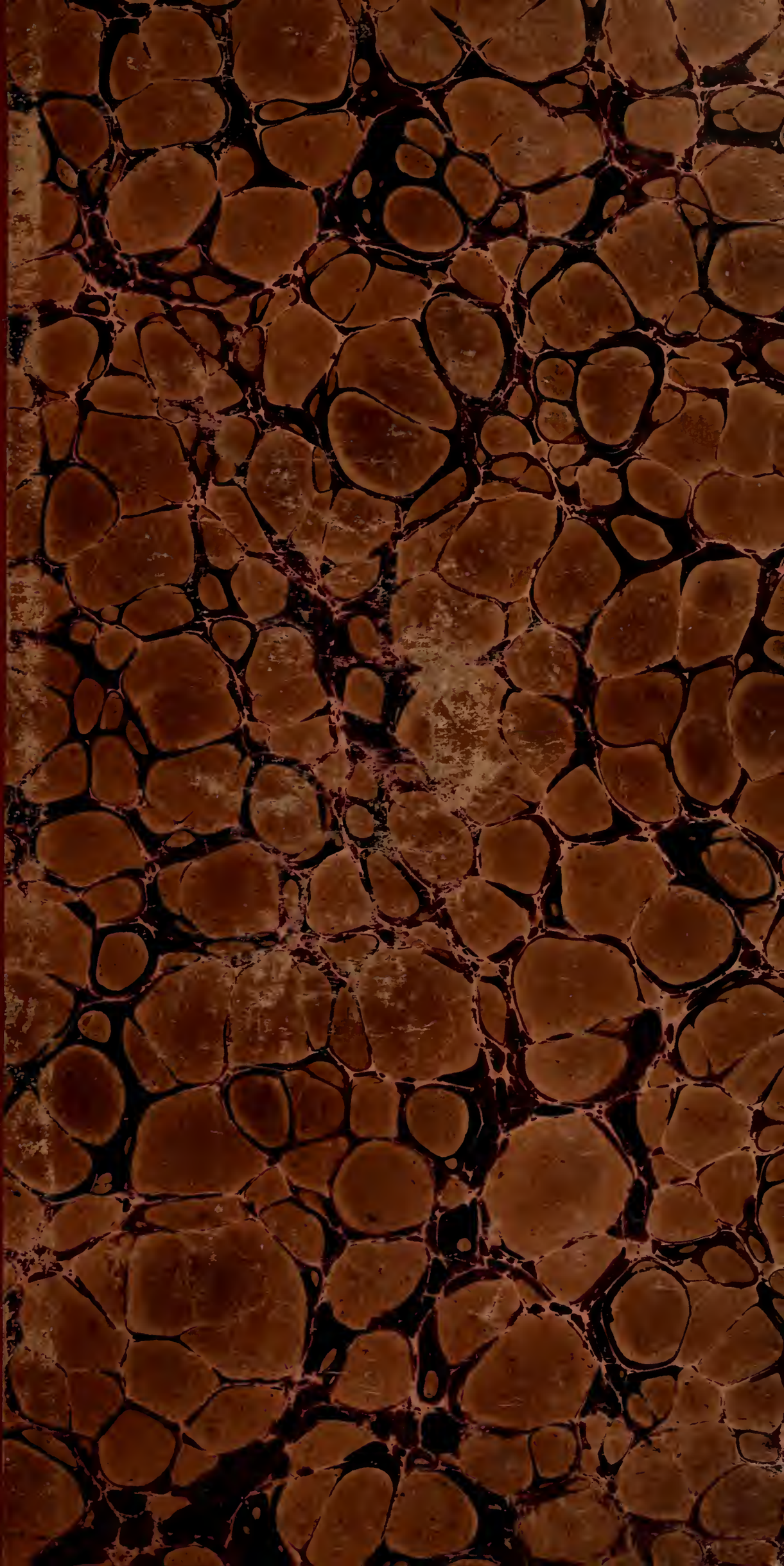

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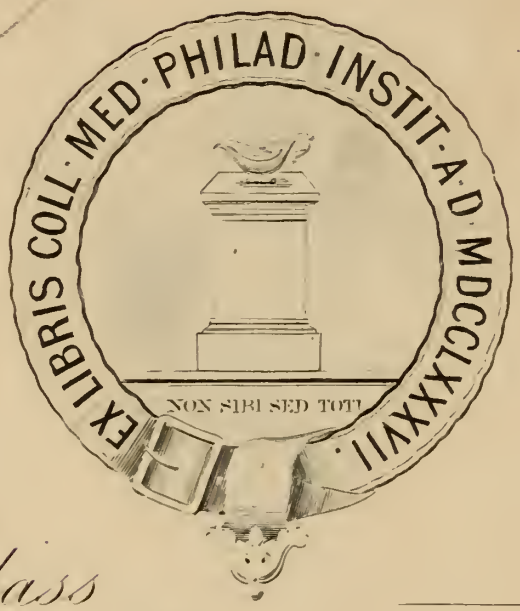

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THE FEVER OUTBREAK IN THE WEST ALBANY SHOPS; ITS NATURE AND ETIOLOGY.*

BY F. C. CURTIS, M.D., ALBANY,
PROFESSOR OF DERMATOLOGY, ALBANY MEDICAL COLLEGE.

This epidemic has been one of unusual interest, and deserves the careful consideration of the profession and all concerned with sanitary affairs. I have seen some of the subjects of it, and have looked over the site of its development and to some degree into its general surroundings. In opening the discussion upon it, however, it is not my purpose to speak as one who has made an elaborate study of the epidemic, nor as reflecting the views of any considerable number of those who had to do with it. Others have seen many more of the sick than I have, and I hope they will express the results of their own observation.

Early in September physicians, whose practice covered largely the part of the city where the most of the operatives in the West Albany shops live, had their attention attracted to the very unusual prevalence of a fever having some peculiarities of its own. The epidemic had begun during the preceding month. It appears to have reached its height during September, and begun to abate in October, by the end of which month it is probable that the incidence of new cases had pretty much ceased.

As to the number of cases that have occurred and the proportion of them that have been fatal, it would be possible to find out only by an inquiry addressed to all who have had the care of the sick. It is quite probable, however, judging more from general information than from any attempt at exact inquiry, that of the 1,200 men employed in the shops and about the yards nearly one fourth were affected, this

* Read before the Medical Society of the County of Albany, December 11, 1889.

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including those sick with the fever which properly constituted the epidemic and also those ill with the various ailments which in the ordinary course of events are likely to occur among such a number of men and which would be more likely to prevail at this season of the year.

What is the nature of the disease constituting this extraordinary outbreak? This question, which is the one of primary interest, to which an altogether satisfactory solution has not been proposed, is to be answered by a study of its clinical history, and by its etiological surroundings, so far as they can be discovered.

Early in the epidemic I found, on inquiry among physicians having cases in charge, that there was considerable conflict of opinion regarding its nature. The majority, however, were inclined to look upon it as a fever of malarial origin, and the existence of symptoms referable to this, particularly as to the occurrence of chills, were especially emphasized. None, however, reported these chills as having any regular periodicity of recurrence, nor that cases conformed to any established type of malarial fever. In fact, it seemed to be the general impression that the fever was a continued fever, but the malarial character of the sickness was what appeared to receive especial emphasis in the minds of these observers early in their observation of it. It is evident there was confusion in the minds of the observers as to the nature of the fever, and that cases as they presented themselves individually exhibited symptoms that were somewhat unusual, the only thing certain being that it was an acute febrile disease.

My own experience was limited to a few cases, who were employed in the various shops and about the yards, and as there was considerable uniformity in the symptoms, and variation only as to intensity, I may best give a summary of my individual observation.

The onset of the sickness was gradual, and was characterized by simple malaise, growing in intensity for several days. I found the patients, when first seen, having pretty marked weakness, amounting, in severer cases, to prostration. This was more noticeable than is common early in typhoid or other autumnal fevers, and was a feature throughout. Then, there was very considerable gastro-hepatic derangement. The tongue was heavily coated with thick, whitish fur; there was complete anorexia, and there was uniformly constipation. This continued and did not yield readily to treatment.

Early in its course the occurrence of chills was voluntarily spoken of, but I always found that it was nothing more than

the chilliness following a change in temperature or a draft of cold air, having no regularity of occurrence nor followed by any exacerbation, being only that which any one in a febrile state is subject to. Neither was there sweat. The fever in no case was high, and the pulse was generally below 100 There was no more evening exacerbation than would accompany a common cold or simple continued fever.

There were no subjective symptoms of note. My patients, when in a recumbent position, felt no discomfort beyond a sense of weakness. They were inclined to apathy, had no inclination to take food, and while none of them were strictly confined to bed, desired to rest undisturbed. The bowels yielded to laxatives, the stools having nothing characteristic; there was no petechial eruption, no iliac gurgling, no nosebleed, no sequent emaciation. They had the symptoms simply of a mild continued fever, running a slow course, with persistent anorexia, constipation, foul tongue, and prostration. This weakness was a marked symptom and persisted for a long time, more especially in the severer cases, and was an unusual feature characterizing the sickness. While not strictly confined to bed, they were long in recovering strength and clearing of the tongue. Even after so far recovering as to feel perfectly able to go to work, they found, on a little exertion, their lack of strength. The duration varied from two to five or six weeks, but some are even yet, weeks after apparent recovery, feeling the effects of their sickness. Those most severely affected were workmen in the boiler shop. There appeared to be no definite course to the disease, but it wore itself through variously, according to its intensity and the vitality of the subject. I am perfectly aware that this does not describe the cases of all; in fact, many that I had information of were much more severe, and we know that there were a considerable number of fatal cases. But I suspect that a good proportion of the cases were characterized by the salient features that were present in these.

Judging by the clinical features, it does not appear to me that we can satisfactorily classify the fever, thus occurring epidemically, under one uniform variety of the ordinary essential fevers. I see no resemblance to any of those of paludal, malarial character. The history of the epidemic is sufficient to exclude it, for it is quite improbable that a malarial ferment should have lain dormant, giving no sign of its prior existence, and suddenly develop into activity. For the same reason it would seem proper to exclude typhomalarial fever, a term which may have been adopted by some

early because of the irregularity of the symptoms. I have no familiarity with this disease, and find a variety of views regarding it in recent literature. It appears that it may be, in the minds of some, a typhoid fever with marked exacerbation, or a malarial fever with the sequence of characteristic symptoms of typhoid fever; some refuse to allow its existence. But I doubt from what I have learned of the symptoms if there was sufficient presence of exacerbational symptoms to admit of any malarial element in this epidemic.

Typhoid fever occurs next as a possible name for the epidemic. Here is a disease that has a wide variety in its expression; one that it would be difficult to frame a definition for that would cover all cases. Someone has proposed to call any continued non-symptomatic fever which lasts for ten days typhoid fever. I would allow great latitude in its definition. But, after all, there is a physiognomy to this disease which leaves little doubt in the mind of the physician as to its existence in an individual case. I am certain that none of my cases were typhoid fever. There was total lack of its characteristics. But this I would say, that I believe a not inconsiderable number of the cases were typhoid fever, and it is quite probable that the majority of the fatal cases were of this nature. Regarding this, however, I leave those to report who saw these cases, my information regarding some of them being only obtained at second hand.

As to simple continued fever, which I should say is a legitimate term to apply to a mild febrile autumnal disease that we frequently meet with, it is probable that among the sick there were some affected with it. It would be quite reasonable that among a large number of men, exposed as these were, some would be thus affected, independent of the existence of an epidemic.

I believe, however, that the predominating features which characterized this outbreak, as I have learned them by observation and inquiry, were not those of either of these essential fevers. What I wish to suggest is that they were those of a fever set up by *sewer-air poisoning;* or rather, I should say, those of the air given off from sewage-defiled soil. I think we may recognize a distinct difference between the poisonous effects of air given off directly from a sewer and that from soil soaked with sewage. As most of the houses are built in Albany, the drains are carried out under the basement floors and buried in the earth. All of us have found cases in which drains thus laid have rotted or broken and emptied their contents into the soil beneath the house. We have then not infrequently found one or all of the mem-

bers of a family affected with a febrile disease having marked gastro-hepatic derangement as a predominant symptom and often accompanied with great prostration. The intensity of these disturbances varies, from the production of an acute fever to a simple condition of lassitude and anorexia, which does not keep one from his usual vocation, but, nevertheless, producing, at least when occurring acutely, a pretty well defined disease with recognizable characteristics. It has appeared to me that there was more similarity to this in the West Albany fever than to any other disease.

The best detailed account of sewer-gas poisoning, with a collation of the symptoms of a considerable number of cases, that I have seen, is that of Dr. Henry Hun, which is published in Vol. II. of the Transactions of the Association of American Physicians. While his cases show a considerable variety of symptoms, the common ones are depression, and disturbance of the alimentary canal. My own observation of the conditions produced by sewage-defiled soil emanations has been the uniform production of a quite characteristic irregular fever with these as predominant symptoms.

Passing from the clinical aspect of this outbreak to a consideration of the locality, we find that the site of the West Albany shops is a level plateau less than a thousand yards in width, between abrupt elevations to the north and south, narrowing considerably toward the east, which is the direction of drainage outlet, the fall being very inconsiderable. This plateau or valley, which widens out in a funnel shape to the west, was originally a swampy place, as I gather from the statements of a number who have known it for many years. A stream formerly passed through it, the present Patroon's creek, I suppose, which has been diverted (though in a measure only until of late) by the city from its original purpose as a drainage outlet and its waters impounded a little below in a reservoir for city supply. The erection of shops on this plateau was begun about thirty years ago, the swamp being filled in for the purpose. Going over this ground, one will find a number of large, well-constructed shops built of brick. The surface of the ground is firm and in a well-kept and cleanly condition. A capacious drain has been carried through and well below this area, emptying at a point known as the Black Rock, where the surface falls more rapidly. The principal privies, of which there have been three or four, are near or over this drain, but one at least has been a simple pit, remote from the drain and without connection with it. Urinals and sinks in the shops have branch connections. Generally the rain-water, both of the

surface and from the roofs, falls directly on the ground and finds its way through the soil. The exceptional fall of rain of the past twelve months would be likely to saturate this soil. It should be said that some excavations, rather shallow to be sure, do not show standing water, and there is no evidence of undue moisture on the surface, the filling material, sand and coal ashes, being such as would carry off water readily. I am told, however, by intelligent employés that heavy blows, such as with large hammers on an anvil, produce an agitation of the ground for a considerable area, showing an unstable condition of the soil. And there is no evidence that any system of soil-drainage has been attempted, the drains, if in good condition, barely sufficing to remove the water from public supply, and other waste that provision is made for their receiving. But there is abundant evidence that the drains are imperfect and that the sewage fails to reach the outlet. It is dammed back at the lower part of the grounds, and, failing to pass off by its intended channel, escapes into the soil, most of which is covered by the shops. The soil has thus become saturated with sewage. It is at these lower shops, thus most exposed, that the more virulent cases of sickness have occurred. The rainy weather has intensified this state of affairs, and this, with the autumn season in which conditions exist which favor the development of all diseases having a soil origin, without doubt determined the outbreak. There is no doubt that an undrained soil, saturated with decomposing organic matter has been the main etiological factor in producing this epidemic.

Admitting these conditions and their etiological value, I think the type of fever which I have proposed as resulting from exposure to air from sewage-defiled soil might be looked for. In reaching the conclusion to which I have come as to the classification of this fever, both from the side of its clinical phenomena and its etiological surroundings, I think I am more likely to be challenged as to the propriety of its being an epidemic of typhoid fever than any thing else. Liebermeister says, what we well know, that there is hardly a characteristic symptom of this disease which may not be lacking in a given case. It varies through wide ranges of severity also. Then, there are cases marked especially by an adynamic character and prostration, others in which the gastric or bilious symptoms are predominant. It is a feature, too, of typhoid fever, though not of it especially, that many cases of an epidemic show much the same set of peculiar symptoms; and sometimes a special character of the fever is of frequent occurrence in one locality. Liebermeister speaks of this as true of Basle.

On the other hand, it is true that the air given off from saturated soil, the water of which carries in solution the products of nitrogenous decomposition, is a factor in the propagation of various zymotic diseases. It is not long ago that, having observed the connection between this condition and the occurrence of diphtheria, we placed it in the position of a prime factor in that disease. A similar view has been held in regard to cerebro-spinal fever, and is perhaps as far as we have got in its etiology. Bowditch has made similar observations regarding the prevalence of consumption where the level of ground water is high, though not necessarily defiled. And now just of late an article by Pettenköfer has appeared regarding the alleged prevalence of typhoid fever at Munich, in which he combats the generally accepted view that it is largely developed through the medium of drinking water, and shows, by a long series of records, that there has been a close relation between the prevalence of this disease and the saturation of the soil, and proving that, so far as Munich is concerned, a marked degree of immunity from the disease, for which that place has heretofore been famous, has followed the construction of a proper system of sewerage and drainage.

But it is to be borne in mind that sanitary science has reached the point of saying that these diseases do not arise from the emanations from damp, filth-polluted soil alone. The value of this factor is recognized, but it is subordinate. Its value consists in its furnishing a soil that highly favors the propagation of *certain specific disease germs*, but for the development of the disease it can have a bearing only through the implantation therein of the specific germ. The sewers of New York years ago were no less filthy than they are now, but diphtheria did not occur, whereas now it is a constant and prominent cause of death, and will continue to be until the sewers and soil are by some destructive agent rid of their virus, or the air from them shut away from the lungs of susceptible persons. Pettenköfer also recognizes the same regarding typhoid fever, which is less prevalent not simply because the soil is drained, but because it thereby furnishes less pabulum for developing its *materies morbi;* drainage in a measure sterilizes it. In the absence of a specific germ, a specific disease will not develop. This is perhaps not a universally accepted axiom. Dr. Thorn, in a paper before the Epidemiological Society of London, containing views down to 1887, says that in some cases diphtheria develops under circumstances so remote from the apparent possibility of contagion that it must have arisen

from unsanitary conditions alone; but the mass of testimony is opposed to this now. And with Murchison's views regarding the identity of pythogenic fever and typhoid fever it is probable that few will now agree, for the law of probabilities will eliminate all fever from the category of typhoid in which the specific germ is lacking.

As to whether the inhalation of air from soil saturated with putrescent animal matter will produce a disease attended with a uniform group of symptoms in such a way as to characterize an epidemic, there may also be question. That respiration of noxious gases from sewers and cesspools will cause a great variety of disturbances is true, of which Dr. Hun's collated cases and the observation of the members of the society will furnish illustration. I have emphasized, however, the point that I believe will prove acceptable, that emanations from filth-fermentation in wet soil are observed to be distinguished by producing more uniform and characteristic disturbances. Doubtless we have a filth-bred febrile disorder, pythogenic if you like, very likely the product of non-specific micro-organic ferments. It produces an array of symptoms having general resemblance to typhoid fever, but lacking its distinguishing features, though sometimes, no doubt, when its grade of severity is high, with some difficulty diagnosticated from it. Soil-bred micro-organisms have a culture bed with more definite elements, and they are likely to produce a more definitely defined disorder. It has seemed from my inquiry and observation that this largely characterized the West Albany epidemic. That at the same time a good many cases of true typhoid fever did occur I have no doubt. These cases could many of them be traced to the use of water from an infected well which some of the men used. These were superadded to what I think constituted the main part of the outbreak.

Albany, it may be noted, has an excess of typhoid fever. Of the 10,713 deaths from all causes that have occurred during the past five years, giving an annual death rate per 1,000 population of about 21.50, 33.5 out of every 1,000 deaths have been from typhoid fever, and during ten months of the present year the rate has risen to 34.5 per 1,000. During the same period, of about 294,000 deaths in the entire state, only 8.62 per 1,000 have been from this cause, this difference being largely emphasized, however, by New York city, which has always a very low typhoid death-rate compared with other diseases. In the Hudson Valley district, which has the largest typhoid death-rate of any region of the state, the rate per 1,000 deaths has been about 29.00, Albany showing

an excess over its own district of about 5 deaths per 1,000 from this cause. And the current year shows an increase over any before it, a fact which is, however, true of the entire state. This is not the time to more than mention these figures, and I will only say that it will doubtless be found due to the large number of public and private wells which the people use in spite of their condemnation by the Board of Health.

As a final word I would say that while no doubt the condition described at the West Albany shops is one that would furnish a favorable culture-bed for typhoid germs, there is no reason for believing that they have been there implanted. The locality has no connection with the general system of city sewerage, there are very few dwellings on the plateau or its banks, and there has, I think, been no precedent prevalence of the disease there in former years. Whatever cases may have occurred among the workmen have been contracted from an outside source.

My conclusion regarding this epidemic is that it was one of a filth-bred disease, developed through the medium of sewage-polluted soil having a high ground-water level, exhibiting itself as a febrile disorder—a pythogenic fever if you please—presenting an array of symptoms such as I have attempted to describe.

DISCUSSION.

[REPORTED BY W. G. MACDONALD, M.D., SECRETARY.]

Dr. L. BALCH: I had hoped some one else would open the discussion of the paper of Dr. Curtis. I agree with Dr. Curtis as to the origin of this epidemic. I go further, and state my belief that some of the cases were typhoid fever.

Dr. Balch then described the relations of cess-pools and vaults to the sewage-contaminated spring closed by the Board of Health. He also described the soil-formation of the site of the shops. It was his experience that most of the cases were not due to impure water, but to the emanations of a sewage-saturated soil. It had been necessary to pump the sewage out from a fly-wheel pit during summer, the sewage having oozed up into it. Whole location very badly drained.

Dr. JOHN THOMPSON had been much pleased with the discussion, and related personal cases which were not typhoid. He spoke of their slow convalescence.

Dr. THOMAS BECKETT reported at length a series of cases which were typhoid fever, and one in particular being a typical case, ending fatally. The drainage of that section of the city was very bad. He had seen many foul cellars. Many were damp the year round.

Dr. D. H. COOK gave his experience, having seen many cases. Felt sure some were typhoid.

Dr. F. R. GREENE, of West Albany: I have treated a hundred cases, and believe them to have been typhoid fever. I saw many of the early cases. I be-

lieve the spring from which most of the early cases drank was infected with the typhoid bacillus. A case of typhoid occurred early in the year near this spring, and the stools were not sterilized. It is probable that this spring had been infected by these stools.

Dr. CURTIS said, in closing, that he had purposely avoided inquiring into the views of members before writing his paper, so that each one could report for himself in the discussion.

Dr. P. J. KEEGAN moved that the thanks of the society be extended to Dr. Curtis for this valuable paper. Carried.

CORRESPONDENCE.

THE EPIDEMIC OF DENGUE.

SUQ UL GHURB, MT. LEBANON,
Sept. 30, 1889.

Dear Dr. Vander Veer:

I arrived here safely July 15, and have been spending the summer in a beautiful little village on the western slope of Mt. Lebanon. It is situated about fifteen miles, as the crow flies, from Beirut, but we travel at least thirty miles to reach here.

There has been considerable sickness on both mountain and plain this summer, this being a country of epidemics. Small-pox will devastate whole villages, then an epidemic of diphtheria will appear in others, and still in others measles will carry off the children by scores. This, with malarial fevers, Syrian typhoid and typhus fevers, dysentery, etc., etc., give these people a hard time to keep alive. Never was "the survival of the fittest" more apparent than here.

During the past three months, Beirut and vicinity have been visited by a tremendous epidemic of dengue, or, as the Arabs call it, "Abou Rickab" (father of the knee). It is estimated that in the city of Beirut alone there have been over 20,000 ill with this disease, and those who have been afflicted in the suburbs and adjacent villages will swell this number many thousands more.

In the past year these epidemics have been confined mostly to the city, but this year villages three thousand feet above the level of the sea have been included in the epidemic. In one village there were so many ill that there were not enough well ones to care for the sick. The disease has been no respecter of persons; every physician in Beirut has suffered from it more or less severely. In the mountains the medical men have fared better, very few having had the disease, but all expecting it sooner or later. Reports from Smyrna and Constantinople say that in these places also the disease is severely epidemic.

Dengue makes its annual appearance in Beirut during the late autumn or early winter, and is confined to a few cases. Every

six or eight years there occurs a severe epidemic. This year it is the most severe in the history of the present generation, and began in the middle of the hot season. The prevailing opinion is that the early appearance is caused by the unusual heat of the present season. Perhaps that is so, but it seems to me that it is an open question as to the real cause, especially here in Beirut, and also why it does not appear in other towns on the coast, as at Tripoli for instance, and elsewhere. During a residence of five years in Tripoli I have never seen nor heard of a case of dengue there, and all the conditions seem to be about the same (if anything more favorable than at Beirut). Beirut has been built upon a huge sand-heap that has been gradually brought from the sea's bottom, and the part most favorable to dengue is that which has been built within the past fifty years. There is no regular system of drainage; cess-pools sunk into the loose, sandy soil offer a ready means of disposing of all the should-be sewage of a densely populated district. It may be that the soil contains so much effete matter that the extreme heat brings into activity the disease germ, as many think. But, if this is so, why is it that the disease is usually more active when the soil is saturated with winter's rain and the heat is low? As with many other diseases, the knowledge of the real cause is still securely locked in the womb of Time. I have had considerable experience with this disease this summer, and I will jot down some of the principal symptoms as they appeared in my patients.

The onset of the disease is very sudden. A person may be in the best of health and spirits when he is suddenly taken with severe headache and severe pains in the muscles of the lower limbs; especially in the knee the pain is very violent, so much so that the least movement causes an exclamation of anguish. Gradually fever sets in, followed by an increasing debility and restlessness. The action of the heart is rapid and the pulse strong. In children the pulse-throb counts 150 or more, and the respiration is shallow and hurried. Then an eruption makes its appearance; the face is flushed and hot, and the patient wishes to move about in his bed, but the fear of pain prevents him, and he gets into a sort of nervous excitement. There may be considerable gastric disturbance, severe vomiting and colic. The first stage of the disease lasts from six hours to three days, then the fever subsides, followed by profuse perspiration. The eruption, if any, disappears, and the patient experiences great relief, but is very much prostrated—out of all proportion to the severity of the symptoms. He thinks the trouble is past and that it is only a question of hours when he will be himself again, but the disease seems to be in a remission stage, for after an interval varying from two hours to two days all the mentioned symptoms reappear, but not so severe as before. If there has been a rash during the first stage, it gives place to an eruption, resembling in character that of rötheln, and is accompanied by intense itching.

During this stage, especially if it is severe, there may be hemorrhage from the nasal passages or from the rectum; in one case from the lungs, and, strange as it may appear, there was not the least sign of inflammation. In another case, that of a young lady, profuse menstruation appeared, fourteen days before the regular period. The second stage is very variable—from a few hours to many days—but there is a gradual change for the better. I have given you the history of severe cases, but the great majority have the disease very light, and in some the second stage does not appear after the fall of temperature, which is *always* followed by profuse perspiration and sometimes copious diarrhœa. The patient soon goes about his usual occupation.

Treatment.—There seems to be no specific. The Arabs say that "the disease will not depart until Abou Rickab pleases himself to go." Many of the natives do not call in a physician, take only a cathartic and leave the rest to nature. After some experimenting, I prefer a lively cathartic of citrate of magnesia (or what is better, five grains of calomel followed by castor oil—old-fashioned doses, but very effective), and for the fever, antipyretic doses of antipyrin or acetanalide (the latter is decidedly the most effective). Quinine increases the headache and has no effect on the fever. During the febrile stage the great thirst is in a measure quenched by lemonade or lime juice and water For the itching a sponge bath of salt and water, with a few drops of carbolic acid added, relieves very much. During convalescence, to restore the appetite and relieve the great debility, tinct. ferri chloridi and quinine give the best satisfaction, except in those who have suffered from gastric disturbances, to whom small doses of tinct. nux vomica gives the needed relief.

You will see there is nothing special in the above treatment—just treating symptoms as they appear. Although in this disease the vital powers may be reduced to a great degree, it is rarely fatal. If death does occur, it is from some complication or disease that has been present with the patient at the time of the infection. It is a mooted question whether dengue is conveyed from one person to another. I am inclined to believe that it is not, but that it owes its presence to some peculiar condition of the atmosphere, and is confined to certain localities. A person may contract the disease, go to a place remote from the place of infection, and the disease runs its course, and no others contract it.

October 13, 1889.

This, however, must apply to the past, for since the above was written the epidemic has spread over all the Turkish Empire. Thousands are ill in Tripoli, Damascus and other Syrian cities. There are over 100,000 cases in Smyrna and Constantinople. In the former city a conference of thirty-two native and foreign physicians met for consultation, and after an all-day's session they were unanimous in saying they were powerless to stop its

spread, and that the treatment, other that of symptoms, was not of the slightest use.

I begin my surgical clinics in Tripoli November 1st. I have a number of stone cases that have been awaiting my return from the United States. They all come to our clinic for treatment.

With kind regards, I remain,

Sincerely yours,

IRA HARRIS.

NEW YORK, 1730 BROADWAY,
December 2, 1889.

To the Editor of the Albany Medical Annals:

DEAR SIR—As I have accepted the invitation to speak for America in the general discussion of Electrolysis of Uterine Fibroids, I shall be pleased to receive any information *pro* and *con* the subject, and will give due credit to all concerned.

Yours sincerely,

EPHRAIM CUTTER.

X. INTERNATIONALER MEDICINISCHER CONGRESS ZU BERLIN, 1890.
(ARTHEILUNG FÜR GEBURTSHOLFE UND GYNÄKOLGIE.)
GESCHAFTSFUHRER: DR. A. MARTIN, BERLIN, N. W.

MOLTKESTR. 2. *Dec.*, 2, 1890.

Dr. E. Cutter, New York:

DEAR SIR—The committee of organization of our Gynecological Section proposes for discussion the Electrolysis of Neoplasmata. We have invited Apostoli to introduce the discussion, and I have the honor to invite you to second him in the debate. At your side, Th. Keith—Edinburgh, and Zweifel—Leipzig, are invited to do so. We have learned with great pleasure, by your favor Nov. 11th to Cassar, that you will come to our meeting. It would be of high value that you represent our American brethren and their views in this most interesting question of Electrotherapeutics. Of course this official address does not prevent to read the papers you announced to Cassar. Out of the list, I think the first two shall be of a peculiar value. The first, "Food as a Medicine in Uterine Fibroids," would be to discuss in connection with the capital question of Electrolytic treatment of Fibroids. The second one "Stem Pessary," may be read among other papers discussing the Orthopathic Treatment in Gynecology.

I hope to see you coming here with a large number of American brethren to meet the Congress. Our special program is to be issued as soon as the gentlemen assigned to the introductory addresses have sent in their answer. Believe me to be,

Yours truly,

A. MARTIN.

ABSTRACTA.

La Grippe.—By Henry Macdonald, M.D (*N. Y. Medical Journal*, Jan. 11, 1890). The consensus of medical experience and opinions as to the present scourge, elicited by discussion at the recent meeting [of the Committee on Hygiene and a contingent of the County Medical Society of New York] may be briefly summed up for general comparison.

It was thought (by one observer) that in its earlier stages the disease resembled cerebro-spinal meningitis; that the most severe manifestations of the symptoms, as well as the greatest suffering and danger, had been during the first and second day, excepting, of course, those cases in which pneumonia and bronchitis supervened as complications. This disease appeared to differ from all other diseases supposed to be of microbic origin. From cerebro-spinal fever it differed in that the cases of influenza were multiple in a family. This was evidence of the contagious nature of the affection, which, however, was pretty widely disseminated through the atmosphere, by which means the infection might be conveyed. There seemed to be no other explanation of the rapid and universal spread of the disease, except that it was carried by the winds. The period of incubation appeared to be from one to five days. That the disease did not, as a rule, attack children or persons over sixty-five years of age. That a very fatal type of pneumonia, attributable to the epidemic, developed, in the event of imprudent exposure, after the subsidence of the acute symptoms. That to the high mortality rate of the past few weeks, from pneumonia and allied inflammatory conditions, the epidemic has contributed as an initial factor. That the contagiousness of the disease was by no means assured, but its epidemic character seemed evident. That it was not self-protective, the liability to its recurrence in the same individual having been demonstrated. That there was no reason to assume that its existence was influenced by climate. That the erythematous symptoms characteristic of former visitations had been noted. That the disease appeared under many varieties, making any direct classification of the symptoms impossible. The following symptoms might exist together, or only in part: Brief malaise, headache, chill, fever, pains over the whole body, especially in the back and loins; suffusion of the eyes; bronchitis; a characteristic cough; gastro-intestinal irritation; skin eruptions; delirium; great prostration, physical and mental; and certain violent neuralgias. That the treatment, when directed promptly to the "chylopoietic viscera," relieving the intense congestion by active catharsis, and to the lowering of the temperature by any of the standard antipyretics, was usually effective in securing an early subsidence of the initial symptoms. That the administration during the second

stage, which was that of depression, of stimulants, such as digitalis, with the view of warding off the tendency to hypostatic or catarrhal pneumonia, was undoubtedly indicated. That it was the duty of the profession as a whole to warn the public against what seemed to be really the only danger connected with the epidemic ; this lay in the resumption of normal vocations before the recuperation was thoroughly established, and in exposure and fatigue during the stage of convalescence.

This epidemic, now waning, came as a stranger, and, stranger-like, took in a goodly quota of the ultra diagnosticians. As a matter of fact, medical lore is replete with information on the subject. If the prognostications of former observers are of value, the general depression and tendency to a certain class of ailments follows for some time in the wake of such visitations. It is a fact certainly worthy of note that, even after the so-called period of depression is past, convalescence well established, and vocations resumed, there is a very decided lack of tone, patients telling you that they don't seem to be able to pull themselves together. How long this will last remains to be noted.

As yet the microbic origin of the malady has not been demonstrated. It has, however, been suggested that, this being admitted, the development of a resultant ptomaine might cause the pneumonia. While in the interest of science it is most desirable that "grip's" private germ should be caught and bottled, it is of paramount importance that the suggestion for great caution during convalescence, which formed the committee's semi-official manifesto, should be promulgated among the laity, and that the profession should make such use of the present opportunity that it will know the disease when it again comes this way.

The Influenza.—(1) The disease is nothing new, it having been traced through a series of ninety epidemics. The first appeared in the year 1510 and the last in 1870. (2) Its names are old. The Italians call it *influenza* (something fluid, transient, or fashionable); the Germans, *modefieber* (fashionable fever), *blitz-katarrh* (lightning catarrh), *schafs-husten* (sheep-cough), etc., and the Frence "*la grippe*," from *agripper* (to seize). (3) It is not properly called the "Russian" influenza, since it is indigenous to no known part of the world. In Russia it is called the Chinese influenza, while in the Orient it has been accused of coming from still further east—the sea or the continent beyond. The first epidemic described started at Malta and spread to the northwest over all Europe.

It does not always pursue a line of march like other epidemics, but may be found simultaneously in two or more places in both hemispheres, with, of course, exactly opposite conditions of climate, temperature, etc. (4) It is no respector of persons, nor is it subject to any known hygienic conditions. (5) Though generally a mild and manageable disease in the middle-aged and

healthy, it is liable to develop serious lung and nervous complications; for example, pneumonia, cardiac weakness, adynamia, etc. Old persons and young children, the phthisical, the asthmatic, and those who have been weakened by any chronic disease are in great danger.

In the epidemic of 1580 the disease claimed nine thousand victims in Rome alone, and "Madrid must have been almost depopulated by it." To the doctors (blood-letting [?]) was charged this great mortality. (Query: Was Dr. Sangrado alive and in Madrid at the time?) In uncomplicated cases the disease commonly ends in recovery. The epidemics last, as a rule, from four to six weeks. (6) The connection of influenza with cholera is without scientific foundation; nevertheless, the epidemic of 1831 preceded cholera, and that of 1837 followed after the disease. Cholera is now prevalent in Persia, and may spread over Europe on the heels of *la grippe.*

(7) The following, from a St. Petersburg correspondent of the *British Medical Journal*, is a good description of the disease as manifested in the present epidemic:

"It is frequently spoken of in the lay papers as influenza, but the typical symptoms of this disease are far more frequently absent than present, and the only features in common are the rapid course, the extremely rapid spread, and the frontal headache, the great running at the nose and eyes being absent in all the cases that I have seen. The two most prominent symptoms in the present epidemic are those of high temperature and great frontal headache, accompanied in many cases by pain in the eyeballs, and in all by foul tongue and breath, constipation, and general malaise. The onset is rapid, the temperature running up at once to 39°, 40° C., or even higher. The pulse in those cases I have seen is not raised proportionately with the temperature. In some cases there are added the symptoms of catarrh of the nose and frontal sinuses, in others there are sore throat and catarrh of the deeper air-passages, and in many there are vague rheumatic pains about the back, shoulders and limbs. The duration is short, averaging from three to five days, though sometimes prolonged to six or eight days, or even longer, and convalescence is rapid."

The above description would seem to indicate that the disease is of mild type. It is probably much nearer the truth than the accounts which have come into the public prints from Paris.

(8) The cause of the disease is a riddle. Dr. Seifert, of Würzburg, believes it to be due to a specific microbe which he thinks he has found, and has named influenza-coccus. The microbian theory of the affection is not to be sneezed at, but Dr. Seifert must prove his point. In view of the ultra pandemic character of *la grippe*, we wonder that some philosopher has not traced its etiology to the macrocosmic dust of the astronomers.

(9) The treatment of the disease is to be based upon accurate medical knowlodge and common sense.—*Am. Prac. and News*, Jan. 4, 1890.

PHENACETIN IN INFLUENZA is advised by Dr. A. C. Hallam of Brooklyn, and by Dr. Charles R. Weed of Utica, in *N. Y. Medical Journal*, in five-grain doses repeated hourly until fifteen grains have been taken, following this with five-grain doses three times a day of salicylate of cinchonidine. The disease disappears on the fourth day without sequelæ.

ANTIPYRIN IN HEADACHE AND INFLUENZA.—We abstract briefly from the November *Current Clinique* the following: Mr. W., aged seventy-two, had imperfect digestion and frequently severe headache in consequence. The pain was in the frontal region, and was aggravated by over-use of the eyes. As the attack proceeded, he got a tender spot on some part of the scalp, generally in the right frontal region. He had a vascular disturbance, with throbbing behind the right eye. Because the poisoning cases, in certain symptoms, showed a strong resemblance to migraine, an eight-grain dose of antipyrin was prescribed. The pain, which had been hard and continuous for two hours, was entirely gone in twenty minutes, and did not return for several weeks. Coincidently with the cessation of the pain, there appeared a violent attack of sneezing, coryza and lachrymation. He certainly sneezed twenty times without a pause. There was irritation of the larynx, coughing, tightness of the chest, difficulty of breathing and hoarseness. After the lapse of an hour these symptoms readily faded away, leaving him fatigued and indisposed to repeat that new headache remedy.

Mr. B., aged forty, presented himself, suffering with the same train of symptoms as had been produced in Mr. W. The suddenness of the attack, the wide extent of irritation, and the marked irritability of the mucous surfaces, suggested the use of antipyrin. The medicine was prescribed in five-grain doses of the first decimal trituration. As if by magic the catarrhal storm was warded off, and the patient almost at once put in possession of his usual ease.—*Hahnemannian Monthly.*

ANTIPYRIN IN ASTHMA.—Mr. W., aged fifty, mechanic, has had asthma nearly every night for three years. He had no bronchitis nor cardiac trouble and but little emphysema. He would have one or two attacks every night and occasionally one during the day. He had taken divers remedies from many physicians with no effect. Fifteen-grain doses of antipyrin were given at 5 P. M., 12 P. M., and 12 noon. The patient had only one very light paroxysm during this time. The same treatment was repeated on the following day with a still better effect. Five-grain doses were then given every three hours, during the four succeeding days, until the asthma had ceased. The medicine was then withdrawn. Some weeks later he reported no return of the paroxysm. The antipyrin was given because the prescriber had noted among the poisoning symptoms produced by the drug,

severe fits of coughing, but unattended with expectoration; breathing hard and labored, attended with a feeling of suffocation and complete inability to lie down; extreme tightness of the chest and throat, with loss of voice and difficulty of breathing; great sense of suffocation, tightness of chest and wheezing cough.—*Current Clinique.*

Antipyrin Habit.—To the already long list of drugs, the use of which, under proper restrictions, is both beneficial and proper in combating the various ills to which flesh is heir, but whose abuse becomes a curse to humanity, another has recently been added. Scarcely have we learned to use antipyrin than the tocsin of alarm must be sounded against its abuse. The recent discovery of its value as a nerve tonic places it on the list with morphine, chloral, cocaine, etc., so seductive is its gentle, soothing influence upon the overstrained nerves. Its victims are already found, especially among society women, whose nerves, strung up to a high pitch by the overwhelming demands of a winter season of gayety, seize eagerly upon any thing that will afford relief from the headaches and other disorders arising from prolonged fatigue and overtired nerves. So pleasing is the effect that it is soon used for every trifling ill feeling, until the patient finds herself unable to live without it, and the fascinating "antipyrin-habit" is formed. Properly used as a nerve tonic, its effects are admirable, but, abused, the victim becomes even more hopelessly entangled than the morphine or cocaine victim. The effects vary with the dose. In large doses it produces complete relaxation with loss of reflex action. In moderate doses, continued, it induces convulsions. As a stimulant its effect is much like that of quinine.—*International Dental Journal.*

A Case of Poisoning from Antipyrin.—Panschinger reports (*Centbl. für Gyn.*) a case of poisoning by antipyrin, in which a new symptom was observed, viz., profuse diarrhœa, which set in a few hours after the last dose was taken. In all five grains were taken, one every hour. Aside from the diarrhœa, the principal symptom was the usual collapse. The patient recovered in ten days. The medicine was obtained from an apothecary, and without a prescription.

Pine-Needle Cigars and Cigarettes in Influenza.—As an item of interest, the quickest relief from influenza which my patients obtain is through the use of pine-needle cigars and cigarettes. I find that they will act as a preventive, and once the disease has instituted proceedings they act like magic. Any one can make the cigarettes. I have no hesitancy in recommending their use, as nothing is used in their manufacture but the fresh pine needle and the best of tobacco. A non-smoker can inhale with no unpleasant effects.—*Harry Neafie, M.D., in the Medical News.*

Treatment of Scarlet Fever by Chloral Hydrate.—So soon as the patient is suspected or known to be developing scarlatina, a laxative dose of calomel, proportionate to the age and general condition, is administered. Shortly thereafter chloral is given, in moderate doses, at intervals of two or three hours, or longer, throughout the attack. Profound narcotism is, of course, to be avoided. The patient may thus be kept in a condition of light repose throughout the whole duration of the fever. By this means not only is there obtained relief from the restlessness and distress of the active period of the disease, but much wear and tear of the nervous system and some exhaustion from muscular effort are prevented. Delirium is controlled; the itching and burning of the skin due to the eruption are allayed; in a word the greater number of the distressing symptoms of the disease are favorably influenced by the cautious and prolonged administration of chloral hydrate in efficient doses. The administration of nourishment immediately after the administration of the medicine is desirable.

The elimination of the drug takes place chiefly by the kidneys, and to a large extent as chloral. Decomposition with the formation of chloroform does not, as Liebreich anticipated, take place within the organism. The fact is of some theoretical importance, in view of the well-recognized antiseptic properties of chloral. Chloral acts, then, as a local antiseptic upon two tissue areas that are especially prone to the pernicious effects of the infecting principle of scarlatina. They are the throat and the kidneys. It cannot be claimed that chloral, in such doses as are safe, exercises to any great degree a specific antiseptic effect upon the fluids of the organism at large.

Chloral, in the doses given, appears to exercise no influence upon the primary temperature curve of the disease, defervescence taking place between the seventh and ninth days by rapid lysis, as is usual.

Otitis media, extensive adenopathy of the cervical lymphatics, the "collar of brawn," and abscesses, under this treatment do not occur.

If, during the course of the disease, especially at the beginning of defervescence, the heart flags, alcohol must be given. As a matter of fact, alcohol, in the form of millk punches, wine whey, or egg nogg, forms a useful addition to the dietary throughout the course of the disease.

From the beginning of the attack, the nasal passages and the throat are systematically treated by antiseptic sprays, such as weak solutions of Labarraque's solution, Dobell's solution, Listerine, or the antiseptic tablets devised by Dr. Seiler.

From the time of the appearance of the eruption, inunction is practiced. For this purpose freshly-washed lard is employed.

After the child leaves the room, thorough disinfection is to be practiced by sulphur fumigation in the presence of moisture.

During the convalescence, quinine, nux vomica and iron are indicated.

Whether or not other hypnotics, administered upon the same principles, would yield equally favorable results in the treatment of this disease, I cannot say. Chloralamid, among the recent synthetic narcotics, appears to be more efficient as a sleep producer than chloral, and less dangerous; but we have yet no experience with it, nor does it possess the antiseptic qualities of chloral.—*Dr. J. C. Wilson, in Medical News.*

Cerebral Complications of Ear Disease.—Dr. Otto Körner, of Frankfort, points out that all the cerebral complications of ear disease are more frequent on the right than on the left side. Thus, of 31 cases of cerebral abscess, 18 occurred on the right side from disease of the right ear, and 12 on the left from disease of the left ear, and in one case there was abscess on both sides following disease of both ears. Similarly, of 61 cases of thrombosis of the lateral sinus, 35 were met on the right side and 26 on the left. Of 23 cases of meningitis from ear disease, 17 affected the right side and 3 the left. Adding these together, we have a total of 115 cases, of which 70 were on the right side, 44 on the left side, and 1 bilateral. Körner traces the greater frequency on the right side to the fact that the groove for the lateral sinus passes further forwards and outwards into the petrous and mastoid bones on the right than on the left side. The bony wall separating the sinus from the mastoid antrum is therefore thinner on the right side. Added to this is the fact that in brachycepahalic skulls the anterior cerebral fossa is considerably nearer the mastoid antrum than in the dolichocephalic. In the former, cerebral complications of ear disease more readily ensue than in the latter.—*Deutsche Med. Zeitung.*

Aborting Acscesses.—Apply a yeast poultice to the affected parts, upon which equal parts of borate of soda, boric acid, salicylic acid and powdered tannin should be dusted. A moderate dose of calomel should be given internally. This treatment is usually sufficient to abort an abscess if it is resorted to when the local symptoms first make their appearance. Frictions with the following ointment will also be found valuable (*Medical and Surgical Reporter*): Salicylate of bismush, ʒ ijss; lanoline, ʒ vijss.—*Am. Prac. and News.*

Death under Ether.—At Bellevue Hospital a death under ether, used as an anæsthetic, recently took place during an operation for abscess in the neck. At the autopsy the kidneys were found to be diseased through cystic degeneration.—*Am. Prac. and News.*

Albany Medical Annals.

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BOOK NOTICES.

DISEASES OF THE NOSE AND THROAT. By Francke Huntington Bosworth, M.D., New York. In two volumes; Vol. I.—Diseases of Nose and Naso-Pharynx. 4 colored plates, 182 wood-cuts, 670 royal octavo pages, cloth, $6.00. New York: William Wood & Company.

Nowadays there seems to be no limit to the issue of new works treating of some department of medical science and art. So large has the field of surgery and practice become that the necessity of specialties in the practice of medicine is quite apparent within the last decade. Among these, none are claiming greater attention and more patient and exhaustive research and study than those devoted to the diseases of the nose and throat. Many works, both native and foreign, are on the shelves of both the general practitioner and of the specialist. Of them all, none approaches so completely the thorough presentation of this subject as this new work of Prof. Bosworth. As he says, "I therefore determined to write an entirely new treatise."

In his short review of the history of the laryngoscope and the rhinoscope he condenses much valuable information, and in his subsequent delineations of methods of examining the upper air passages, not alone by words, but also by clear illustrations, he has made his experience in this line available to student or practitioner. The methods of treatment of the upper air passages by means of instruments are very practically illustrated and defined. The chapters

on the mucous membranes and on taking cold are replete with the author's originality and reliable suggestions In the consideration of the anatomy and physiology of the nose and naso-pharynx nothing has been omitted which the discoveries of the most recent investigators have brought to light The narration of the various diseases, of the deformities, of foreign substances or of the growths occurring in the nose or in the naso-pharynx, together with their clinical history, etiology, pathology, diagnosis, and treatment, is exceedingly instructive and so interesting that the perusal of the entire work would seem imperative. In the chapter on asthma the author's especial views are presented and certainly supported by arguments and personal experience which cannot fail at least to profoundly impress, if not to convert, the reader to his views. The chapter on hay fever is one which deserves the thoughtful study of every practitioner, and certainly will receive the careful perusal of any who are the victims of this almost intractable disorder. One of the great features of this most complete work is the author's personal views and opinions. From his large practice in his specialty and from his carefully made observations, with the deductions therefrom, his own personal convictions are modestly yet firmly presented They are derived not from books and theories of others, but from the author's own experience and personal investigation, and they cannot fail to impress the reader with their originality and honesty. In the section on external surgery the description of the various surgical procedures which have been resorted to for gaining a wider access to the nasal cavity and the naso-pharynx cannot fail to be of great value, as grouping together these various operations, giving a concise yet finished survey of the resources at the command of the surgeon in dealing with the graver forms of neoplasms which are met with in these regions.

The arrangement of the various subjects treated is admirable. The illustrations are exceedingly accurate, well defined and numerous. The bibliographical index and the general index are unusually complete and satisfactory. The publishers cannot but receive great credit by the issue of such a well-printed, well-bound and finely illustrated volume. J. M. B.

International Medical Annual (for 1890.) Eighth yearly issue. 600 octavo pages, price $2.75, post free. New York: E. B. Treat, Publisher.

Thirty-seven editors in the several departments are to give a summary of New Remedies and New Treatment, with reference to the medical literature of the world pertaining to the year's progress of medicine.

Annals of Surgery, $5.00 a year; *Weekly Medical Review*, $3.50 a year; *American Journal of Ophthalmology*, $3 00 a year. J. H. Chambers & Co., publishers, 914 Locust street, St. Louis.

The *Annals of Surgery* is a large octavo volume issued every month in the year. The most eminent men are its contributors. Nothing of medicocre value encumbers its pages. The publishers do their part to correspond with the intrinsic excellencies of the reading matter.

EXCHANGES, PAMPHLETS, ETC.

Medical Mirror, St. Louis, Mo. I. N. Love, M.D., Editor. To appear in January.

Columbia Bicycle Table Calendar, with pen-rack stand. Pope Mfg. Co., Boston, Mass.

Bulletin Soc. Saint-Vincent de Paul. Octavo, monthly, 4 fr. a year. 82 Re-Bonaparte, Paris.

Surgical Treatment of Erysipelas in Children. By A. Seibert, M.D. From *N. Y. Med. Journal.*

Enteralgia and Chronic Peritonitis. By A. Jacobi, M.D., New York. From Transactions of the Medical Society of Virginia.

Case of Stricture of Rectum, Result of Specific Vaginitis. By L. H. Adler, Jr., M.D. From *Phila. Med. and Surg. Reporter.*

The Cure of Crooked and Deformed Noses. By John B. Roberts, A.M., M.D., 13 illustrations. P. Blakiston, Son & Co., Philadelphia.

Contribution a l'etude des Corps Étrangers des Voies Aériennes. Dr. E. J. Moure, Bordeaux, France. Octave Doin, Editeur, Paris.

Case of Adhesion of Soft Palate to Pharynx; also a case of Syphilis of Throat. By E. Harrison Griffin, M.D , New York. From *Medical Record.*

Nervo-Vascular System. Three charts of names of arteries, veins and nerves, each 24 by 18 inches. 50 cents for the set. F. A. Davis, publisher, Philadelphia.

Report of Committee on Dental Practice, Dental Society of State of New York; also "Chloride of Methyl." By M. L. Rheln, M.D., D.D.S., New York. From *Dental Review.*

Creasote in Fifty Cases of Diseases of the Air Passages (*Virginia Med. Monthly*); Atropine in Enuresis (*Archives of Pediatrics*). By William Perry Watson, A.M., M.D., Jersey City, N. J.

PERSONAL.

—Dr. Alois Donhauser (A. M. C., '77), sergeant in the United States Signal Corps, died at his residence in Albany, Monday evening, January 30, 1890. Coming to this country from his native city, Munich, Bavaria, when 19 years of age, Dr. Donhauser's eye struck an advertisement for officers for the Signal Corps. This branch of the army was just being established. Dr. Donhauser knew no one in this country but the companion of his voyage. He tried the examination

and was at once placed among the founders of the signal service. He remained in the service up to the time of his death, a period of nineteen years. Soon after entering upon his duties at Washington he was made a sergeant, and in 1874 was given his first charge, the signal station at the Dudley Observatory in this city, which had been established but a short time previous. Dr. Donhauser did much to improve this and make Albany one of the principal stations, and the results of his master-mind as the service continued were noticed throughout the United States. He made several important innovations and improvements.

His mind was ever active, and during his leisure hours while signal officer in this city he took a course of lectures in the Albany Medical College, graduating in 1877 second in a large class. He never practiced his profession, feeling content to remain a sergeant in the Signal Corps, a work he loved. During his nineteen years' service he held more responsible positions than any other man of the same grade in it, having had charge of nearly all the large stations, including New York, and was honored by the chief signal officer by being placed in charge of the instrument-room at Washington. But the climate was not favorable to him, and in 1877 he was invited to a choice of stations vacant, and selected Rochester. Becoming very much worse, however, he asked for leave of absence, which was granted, and he came to Albany in hopes of regaining his health, being assigned here for "light clerical duty" by the signal service. At first the change of climate seemed beneficial, but about three months ago he commenced to fail rapidly.

In 1882 he married Miss Martha W. Lewi, daughter of Dr. Joseph Lewi, of this city, who, with a five-year-old son, survives him. Dr. Donhauser was a member of Washington Lodge, F. and A. M., of this city.

His trouble was laryngeal consumption, and only his tremendous physical power had enabled him to withstand its attacks so long.

—Dr. Charles D. Rogers ('88), son of John D. Rogers, superintendent of the Round Lake Association, has been appointed assistant surgeon in the United States Marine Hospital at Sitka, Alaska.

—Dr. R. D. Clark, of Albany, mourns the loss of his wife, Mrs. Ettie S. Scott Clark, who died January 9, 1890, after a prolonged illness.

—Prof. W. G. Tucker ('70), of Albany, was last November elected a Fellow of the Chemical Society (F.C.S.), London, England.

ALBANY

MEDICAL ANNALS.

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NERVOUS FORCE AND NERVOUS SYSTEMS.*

INTRODUCTORY LECTURE TO A COURSE OF LECTURES ON THE DISEASES OF THE NERVOUS SYSTEM.

BY HENRY HUN, M.D., ALBANY,

PROFESSOR OF DISEASES OF THE NERVOUS SYSTEM AND OF PSYCHOLOGICAL MEDICINE, ALBANY MEDICAL COLLEGE.

A knowledge of the anatomy and physiology of an organ is absolutely essential to any proper understanding of the diseases affecting it, and this is especially true in the case of the nervous system, which is not a homogeneous organ, but a most complex combination of nerve cells and fibres, in which different groups of nerve cells and different bundles of nerve fibres have different functions to perform, certain groups of nerve cells having to do with the production of movement, others with the production of sensation, certain bundles of nerve fibres always conducting nervous impulses in one direction while a neighboring bundle always conducts them in an opposite direction. Although you may have obtained this knowledge more fully in other departments of the school, yet it seems desirable to devote the first few lectures of this course on the diseases of the nervous system to a hasty review of what is known about the structure and action of the nervous system in the condition of health, so that the matter may be fresh in our memory while we are considering the diseased structure and the diseased action of this system. In this first lecture I wish to present to you certain general considerations in regard to the essential nature of nervous force and of a nervous system.

Among the lowest and simplest forms of life is the amœba. This is a mass of living albuminous matter, and since we call living albuminous matter protoplasm, so the amœba is a

* Delivered at the Albany Medical College on September 30th, 1889.

mass of protoplasm. It naturally assumes the spherical form, and under the microscope appears as a granular substance without definite structure. Very similar to the amœba are the white globules of the blood, which are small spherical masses of protoplasm, and have a life of their own, distinct from and independent of the life of the animal to which they belong. The amœba and the white blood globule, and similar elementary forms of life possess the property of reacting to external stimulants or irritations by movements or contractions, and when they are observed under the microscope they are seen to be in constant motion. They send out processes or feelers in all directions. They wrap themselves about a foreign body, and if it be nutritious they absorb it into their own substance, and in thus wrapping themselves about their food they convert a portion of their external surface into a temporary stomach. These simple forms of life have very little power of resisting injuries; many chemical agents or a moderate change in the temperature of the medium in which they live will cause their death. In order that they may live, they must be immersed in a fluid which does not vary much in temperature and which contains suitable food without containing harmful things. Under such conditions these simple organisms not only live, but have propagated themselves through thousands of years, and, according to the theory of evolution, they have slowly become modified in virtue of a gradual change in the surrounding conditions, and have developed into all the complex forms of life which exist in the world to day. Something not unlike this takes place in the production of every human being, for a new-born babe has developed in the course of a few months from an impregnated ovum — a simple cell, which requires moisture, warmth and food for its growth and which can be destroyed by a very slight change in its surrounding media.

From simple organisms, like the amœba, development has taken place in two directions, so that all living things are divided into two great groups—the animal and the vegetable kingdoms. The lowest members of the two kingdoms resemble each other so closely that it is often very difficult to say whether they are animals or vegetables; while the highest members, as, for instance, man on the one side and an oak tree on the other, bear very little resemblance. Nevertheless, the resemblance between even the highest members of the animal and vegetable kingdoms is greater than at first appears. In the first place, both animals and vegetables are composed of the same morphological element—that

is, of cells. Even the most complex organism, as, for instance, the human body, is composed entirely of cells imbedded in intercellular substance which is itself the product of cells. These cells are grouped together to form different organs, each organ being composed of cells having a peculiar form and function; and although every cell in the body (except the colorless corpuscles of the blood and lymph) is developed in a one-sided way, one of its functions being developed at the expense of its others, still, to a certain extent, every cell possesses the properties common to all cells—it came originally from a cell similar to the white blood globule, it can reproduce itself, and its life is, to a certain extent, independent of the life of the animal or plant to which it belongs. In the second place, not only are the members of the two kingdoms composed of the same structural element (cells), but there is also a strong analogy between the vital phenomena which take place in the members of the two kingdoms. Thus food is absorbed in the roots of vegetables very much as it is in the alimentary canal of animals. In the leaves of vegetables takes place a more or less perfect respiration. There is a circulation of sap in vegetables analogous to the circulation of the blood in animals. And, finally, both vegetables and animals are able to reproduce themselves, and the higher members of each group possess definite organs of reproduction.

There is one system, however, which animals possess and which vegetables do not—that is, the nervous system with its appendages, the organs of sense and the organs of locomotion. It is by means of the nervous system and its appendages that animals can move about and can search for and acquire their food. Vegetables have no need of any such system. Their food, in the case of the higher vegetables at least, is supplied to them in the soil in which they are rooted and in the air which surrounds them, and any movement which would involve the separation of their roots from the soil would cause their death. A nervous system is not at all necessary to vegetables in order to enable them to perform their function in the world. The great function of the vegetable kingdom is to purify the air and to supply food for the animal kingdom. Vegetables absorb the carbonic acid, water and nitrogenous compounds which animals give off, and under the agency of sunlight they return oxygen to the air and build up complex organic compounds such as starch, sugar, gluten, etc., which serve animals as food. On the other hand, in the animal body, under the influence of the oxygen taken in in respiration, these unstable complex

compounds break up into simple ones, such as carbonic acid and water, and in thus breaking up and in passing from the condition of complex to that of simple compounds force is evolved, which may manifest itself in the animal body in the form of glandular, muscular or nervous force. The food is oxidized or burned in the body, just as wood is burned in a fire, and the force thus set free appears as glandular, muscular or nervous force, just as the heat of the fire can be converted into any form of mechanical force. Nervous force, then, as well as every other form of force which the animal manifests, is produced by the oxidation of the food which the animal absorbs. And this food is derived either directly or indirectly from vegetables, which build it up, under the agency of the sunlight, out of water, carbonic acid, ammonia, urea, etc., waste products which pass out of the animal body in his breath, urine and fæces.

Just as the vegetable is subservient to the animal kingdom, purifying the air and supplying food for the latter, so the various organs of the animal body are subservient to the nervous system. Thus, the organs of sense and the organs of locomotion can be considered as appendages to, or rather terminal organs of the nervous system; the circulatory system supplies it with nutriment and removes the material which has been used up, while the various glands render the food capable of being taken up by the blood and remove the waste products from the blood. All these organs, as we have seen, have something more or less analogous to them in the vegetable kingdom. The nervous system, however, is distinctly animal and is essential to animal life. For animals cannot lead an altogether passive life, as vegetables do. They must seek and find their food and drink, and they must protect themselves from their enemies; these things they accomplish in virtue of their nervous system. The higher an animal is in the scale of development the more necessary and the more complicated does his nervous system become, and man, who must not only obtain his food and drink, but must keep himself warm with clothes and fire, and must build houses to protect himself from the weather, and who acquires for himself a thousand necessaries and luxuries, has the most complex and the most highly developed nervous system of any animal. By means of his nervous system and his organs of sense man acquires all his knowledge of the external world, and by means of his nervous system and his organs of locomotion man changes and modifies the external world in accordance with this knowledge. Thus we ascend from vegetables, which have no ner-

vous system and which must be in absolute harmony with their surroundings, or environment, or they will die, to man with his complicated nervous system, who is in great disharmony with his environment and who attains his best and highest development when he is in the greatest disharmony; for it is not in the tropics nor in conditions where his wants are most easily supplied that man attains his highest development.

From these general considerations about the nervous system we see how essential it is to animal life and how especially important it is to man. Any impairment of its function will destroy a man's usefulness. In the brain a slight degree of atrophy, which would be of no consequence in the liver or kidney or other internal organ, makes a man a helpless imbecile who can live only by the charity of his fellowmen. Even a change in the structure of the brain so slight that it cannot be recognized by any method of examination which we now possess, renders a man insane—useless and even dangerous to himself and friends.

Every animal, except the very lowest, possesses a nervous system, and wherever the nervous system occurs it is always constructed on the same general plan. It consists always of two parts—of peripheral nerves and of a central organ or ganglion.* The peripheral nerves are composed of nerve fibres, which transmit nervous impulses to and from the central organ. The central organ contains nerve cells, which receive, modify and send out nervous impulses. The central organ is called central because towards it as a centre the impulses from all the sensitive surfaces of the body radiate, and because from it as a centre nervous impulses pass out to the muscles, glands and other tissues of the body. By means of the peripheral nerves the central organ or ganglion is connected on the one hand with the organs of sense, such as the eye, the ear, etc., and on the other hand with the organs of locomotion (the muscles), so that the nervous system brings about an anatomical connection between the organs of sense and the organs of locomotion. When a suitable external force acts upon an organ of sense, a nervous impulse originates in this organ and passes along a peripheral nerve to the ganglion. The nervous impulse may be arrested in the ganglion or it may pass through it and along a peripheral nerve to a group of muscles and cause a movement, and thus the animal will respond by a movement to an excitation of an organ of sense.

* It has not been found practicable to reproduce the plates with which the lecture was illustrated.

The great fundamental function, then, of the nervous system in every animal is to connect together the different tissues of the body, and especially to connect the organs of sense with the muscles. Such a connection might be made by nerve fibres alone, but in such a case the impulses transmitted and the actions resulting could only be of the very simplest nature. It is in the ganglion that the nervous impulses are so modified and combined as to give rise to the great variety of complicated movements that the higher animals exhibit; and it is in the ganglia in the higher animals that the nervous impulses from the organs of sense give rise to sensations and perceptions and originate trains of thought and various kinds of intellectual action. The whole nervous system is comparable to a system of electric telegraphy. The ganglion corresponds to the central office, and the peripheral nerves correspond to the telegraph wires along which messages are received from distant points and are transmitted to other distant points.

Perhaps we shall get a clearer idea of this if we compare an animal with its nervous system to an army with a well-developed telegraphic system. The commander sits in the central office, which corresponds to the ganglion. By one set of telegraphic wires, which correspond to the sensitive nerves, he receives information from scouts who are situated at favorable points of observation, and who correspond to the organs of sense, as the eye, ear, etc. The messages inform the commander in regard to the surrounding country, the position of the enemy, and the difficulties in the way of the advance of the army. In accordance with this information the commander sends out from the central office along another set of telegraphic wires, which correspond to the motor nerves, commands to battalions of troops, which correspond to the muscles; and in executing their commands the troops overcome the obstacles in their way. Just so, by means of his muscles, guided by the nervous system, the animal overcomes the obstacles in his way, of which obstacles he is informed by his organs of sense.

The central nervous organs have a different form in the different divisions of the animal kingdom. In the radiate animals a ganglion is situated, close to the mouth, at the base of each radiating segment of which the animal is composed, and as these ganglia are connected together by nerve fibres, a ring of nervous tissue is formed about the mouth or œsophagus of the animal. In worms there is one large ganglion at the commencement of the œsophagus on its dorsal aspect. In mollusks there are two ganglia at the commence-

ment of the œsophagus, one situated dorsally and the other ventrally, and the ventral ganglion is often quite below the œsophagus in the foot of the animal, in which case the nervous ring formed by the ganglia and their connecting nerve fibres becomes much elongated. In the higher articulated animals (arthropoda), in addition to the ring about the commencement of the œsophagus, there is a chain of ganglia arranged in pairs lying near the ventral surface of the body and connected together by nerve fibres. It may be said, then, in a general way, that in all the invertebrate animals the central nervous organs have their principal seat at the commencement of the œsophagus. Even the central nervous organ of vertebrate animals, the brain and spinal cord, is regarded as a very extreme degree of development of this ganglion, which is situated on the dorsal aspect of the œsophagus in invertebrate animals.

As you well know, the nervous organs in man are divided into two great divisions or systems—the cerebro-spinal and the sympathetic or ganglionic system. The sympathetic system is composed of a series of ganglia arranged in pairs and forming a long row on each side of the vertebral column and of the base of the skull. Nerve fibres connect these ganglia with each other and with the spinal cord and brain, and, on the other hand, nerve fibres run from these ganglia to the thoracic and abdominal viscera, and in especial to the vascular system. The sympathetic system regulates the action of many of the internal organs, and especially regulates the distribution of blood in different parts of the body. Smooth unstriated muscular fibres, wherever they occur in the body, are supplied by nerve fibres belonging to the sympathetic system. The whole sympathetic nervous system is connected with, and in its action is to a great extent dependent on, the cerebro-spinal system. To just what extent it is independent of this latter system is still a subject of dispute. The cerebro-spinal system is of much greater importance, and is the one which will occupy our attention almost exclusively in this course. The central organ of this system is composed of a brain, or cerebrum, and of a spinal cord, and hence the system derives its name "cerebro-spinal." From the cerebrum and spinal cord the peripheral nerves run to all the tissues of the body.

Before describing the nervous organs in man, it may be well to consider briefly their origin and development. In the very lowest forms of animal life, as, for instance, in the amœba, there is no separate nervous system, but the whole external surface or integument is sensitive, and when the

external surface is touched or irritated the animal responds by a movement. In the higher animals the integument continues to be sensitive, and at certain points, as the eye and ear, it is so modified as to be peculiarly sensitive to certain forces, as light and sound. In addition to this, however, in the process of development of the higher animals a portion of the integument becomes infolded and cut off from the surface, and in the interior of the body it develops into the central portion of the nervous system. When we study the earliest steps in the formation of the human nervous system, we learn that in the ovum the first trace of the embryo is the primitive groove, which develops into the spinal cord. The primitive groove is a long, narrow depression, the edges of which grow upwards and inwards till they meet in the median line and thus form a tube or canal called the medullary tube. The inner lining of this canal originally formed part of the external surface of the ovum before it was cut off from it by the union of the two ridges which formed the edges of the primitive groove. The canal or tube which is thus formed out of the primitive groove appears in man as the central canal of the spinal cord, while the wall of this canal grows thicker and becomes the spinal cord itself. In the embryo the medullary tube is not yet closed before it expands at its anterior extremity into three large vesicles, called the cerebral vesicles, and arranged one behind the other. The cavities of these vesicles communicate with each other and with the central canal of the spinal cord, and in their further development they become respectively the third ventricle, the aqueductus Sylvii, and the fourth ventricle; while the walls of these ventricles develop into large ganglionic masses, called respectively the optic thalami, the corpora quadrigemina, and the pons Varolii, the medulla oblongata and the cerebellum, the last three ganglionic masses developing from the walls of the third or last cerebral vesicle. Finally from the foremost or first cerebral vesicle project two little buds, which grow rapidly in all directions, forwards, upwards and backwards, and cover over all the other vesicles. These are called the hemispherical vesicles, because they develop into the cerebral hemispheres, and their cavity, which communicates with the third ventricle, is called the lateral ventricle.

The general description of the central nervous organs, with their enveloping membranes and bony case, in the adult will be taken up in the next lecture, and before closing let us briefly review the principal points which have been dwelt upon in this lecture.

From natural philosophy we learn that one sort of force can be converted into another, but that force itself can neither be created nor annihilated, and in our lecture to-day we have learned that nervous force is no exception to the rule. Nervous force, we have seen, is the product of the combustion or oxidation of the food, which, after having been taken into the body, is oxidized by the oxygen of the air which is taken into the blood through the lungs in respiration. The animal and the vegetable kingdoms mutually supply food to each other. The animal's food consists of very complicated compounds, such as starch, gluten, etc., which are derived either directly or indirectly from the vegetable kingdom. It is the function of the vegetable to take up from the air and soil the simple waste products of the animal body, such as water, carbonic acid, ammonia, etc., and to convert these simple bodies into complex ones under the agency of sunlight; so that it is really the force of the sunlight which is stored up in these complex compounds and which is afterwards liberated when these compounds are broken up and form simple ones in the animal body. The force thus liberated within the animal's body appears as nervous force and as the other forms of force which the animal manifests. Nervous force, then, just as every other kind of force in the world, is primarily derived from sunlight.

We have also learned in this lecture that nervous force is peculiarly and distinctively animal and has no analogue in the vegetable kingdom. By virtue of it the animal can acquire his nourishment, can move about from place to place, can modify the world about him, and is to a great extent independent of his surroundings; while the vegetable, on the other hand, is absolutely dependent upon its surroundings, and if they are not favorable the vegetable must die.

We have also seen that in the lowest animal (the amœba) the surface of the body, or integument, is sensitive, and that in the highest animal (man) the nervous system has its origin in the integument. By the growth and final union of the two ridges on each side of the primitive groove, that portion of the surface of the ovum which lay in the primitive groove becomes cut off from the rest of the surface and enclosed in the body of the fœtus, where it develops into the central organs of the nervous system. The nervous system is the first organ to appear in the fœtus, preceding even the circulatory system, as if the nervous system were a prerequisite to the formation of every other organ.

We learned, furthermore, that the nervous system, wherever it occurred always consisted of two parts—a nerve cen-

tre, or ganglion, and peripheral nerves. The peripheral nerves connect the ganglion on the one hand with a sensitive, on the other hand with a muscular, organ, and thus a direct connection is made between the sensitive organs and the organs of locomotion. The peripheral nerves merely conduct nervous impulses, while it is the ganglion which receives, modifies, and sends out these impulses, and is, therefore, the essential and central part of the nervous system, the whole system having a certain analogy with a system of electric telegraphy.

CORRESPONDENCE.

Neuralgia and Herpes Zoster Femoralis, Following after Menopause.

No. 25 Yates St., Schenectady, N. Y.,
January 27, 1890.

Editor Albany Medical Annals:

Mrs. R., æt. 67, married, mother of several children, for more than a year has been confined to the house and part of the time to the bed. The prominent symptoms were those peculiar to menopause, with severe pain over region of the right ovary, and pain following down over the anterior crural and sciatic nerves; chills, hot flushings, sweats, cramps of fingers, loss of sleep, a constant state of melancholia, constipation, loss of appetite, wasting of flesh. Has had the constant and best attendance of various physicians for a year without relief.

I took charge of the case November 1, 1889. She was at this time mostly confined to the bed, and her husband and family had come to the conclusion that there was nothing more to be done for her, and that she would die. I made a speculum examination, and found the cervix enlarged and of a mottled appearance; at the mouth of the cervical canal there was much redness. I attempted to pass a small probe, but could not do so. After repeated trials with the smallest probes, I found complete stenosis of the cervical canal. [Dr. Rogers writes that after a consultation he persisted further in attempts to open the cervical canal, and goes on to say:] By faithful and persistent effort I succeeded in opening the passage to the uterine cavity, which I found enlarged greatly and inflamed. Under appropriate applications the conditions have improved beyond all expectations. The lady has discharged her servant and mostly does her own work, and there is now every prospect of regaining her health fully. For the past two weeks she has had an herpetic eruption, now subsiding, which has followed the branches of the anterior crural nerve of right leg over the track of the neuralgic pain, which had been a constant attendant. W. E. Rogers, M.D.

ABSTRACTA.

Some Recent Additions to the Materia Medica.—*Cocillana.* Guarea (species undetermined). Synonym—Sycocarpus Rusbyi, Britton. Part employed—the bark. Natural order—Anacardiaceæ. Habitat — Bolivia. Properties — Expectorant, tonic, laxative. This new remedy possesees a sphere of influence on the respiratory organs somewhat similar to ipecac, but said to be "superior in certain diseases of the air passages in which the latter is often used." (Dr. D. D. Stewart, in *Medical News*, August 24, 1889.) Besides its excellence as an expectorant, clinical experience has also established the fact that it exerts a tonic influence upon the appetite, and that it reduces the night-sweats of chronic bronchitis and phthisis. Cocillana also gives promise of usefulness as a laxative. Dose—10 to 30 minims (0.6 to 2 c. c.).

Eschscholtzia (Eschscholtzia Californica, Cham). Synonym—California Poppy. Part employed—the whole plant. Natural order — Papaveraceæ. Habitat — California. Properties —"An excellent soporific and analgesic, and above all harmless." Recent analysis claims to have discovered the presence of a minute quantity of morphine in the plant. The quantity contained, however, is not sufficient to account for all the therapeutic effects, and further chemical investigation promises to isolate another active principle which may better explain its action. The drug is a very useful anodyne in certain cases. The inconveniences attributed to the use of opium, such as stomach disturbance, constipation etc., have not in any case been observed in its use. It may with advantage replace opium preparations for children. Fluid extract of this plant. Dose—15 to 30 minims (1 to 2 c. c.).

Jatropha (Jatropha Macrorhiza Benth). Synonyms—Jicama, Jicomia, Span. Part employed—the root. Natural order—Euphorbiaceæ. Habitat—Northern Mexico and Southern States adjoining. Properties—Alterative and cholagogue; in larger doses, hydro-cathartic and sometimes emetic. Jatropha Macrorhiza, a household remedy of the Mexicans, has been recently recommended for use in this country by Dr. A. H. Noon, on account of its comparative tastelessness, the slight taste the drug possesses being compared to that of the sweet potato. It has been suggested that as an addition to non-cathartic, but otherwise astringent mixtures, its use could not be otherwise than valuable. Clinical experience will doubtless develop other and more specific indications for its employment. Fluid extract of the root. Dose—½ to 2 fluid drachms (2 to 8 c. c.).

Echinacea (Echinacea Angustifolia, Dc.). Synonym—Black Sampson. Part employed—the root. Natural order—Compositæ. Habitat—Western United States. Properties—Very strong claims have been recently made for this drug as an alterative of

great value in all strumous and syphilitic indications. Old chronic wounds, such as fever sores, old ulcers, etc., have yielded to its use after resisting potassium iodide, sarsaparilla, yellow dock, etc. It is also stated to be an infallible remedy in the treatment of blood-poisoning, of snake bites, and as a prophylactic and also curative agent in hydrophobia. Fluid extract of the root. Dose—¼ to ½ fluid drachm (1 to 2 c. c.).

Hydrastinine. A new derivative of hydrastine. A possible substitute for ergot. This substance, an oxidation product of Hydrastine, white alkaloid of Golden Seal, has recently been prepared in order to afford opportunities for physiological investigation in European laboratories, prominent among which are those of the Universities of Dorpat and Berlin. It can be obtained from hydrastine by the action of various oxidizing agents, and though the original methods were attended with considerable waste, improvements in this respect are constantly being made. So far the most troublesome element is encountered in its purification and crystallization. The reaction taking place in its production may be illustrated thus: Hydrastine ($C_{21}H_{21}NO_6$); Hydrastinine ($C_{11}H_{11}NO_2$); Opianic Acid ($C_{10}H_{10}O_5$). The alkaloid, or base, being sparingly soluble and, moreover, rather prone to decomposition when in solution, we have given preference to the hydrochlorate as possessing the desirable elements of stability and solubility in aqueous fluids. Recent advices from the highest European authorities represent it to be of immeasurable service in controlling uterine hemorrhages, far surpassing ergot in efficiency, certainty of action and safety.

Broom-Corn Seed (Andropogon Sorghum. Brot.). Synonyms —Sorghum Saccharatum, Pers., S. Vulgare, Pers. Part employed —the seed. Natural order—Gramineæ. Habitat—Sub-tropical distribution. Extensively cultivated. Properties—Diuretic, sedative, demulcent and soothing to the irritated urinary organs in vesical catarrh, cystitis and irritable bladder. In the aged who are compelled to rise frequently at night to void their urine, it has produced great relief. It must not be confounded with broom-top or scoparius. Dose of fluid extract of the seeds, 1 fluid drachm (40 c. c.) three to five times daily.—*Contributed by Parke, Davis & Co.*

The Dry Method of Operating.—Dr. W. W. Van Arsdale, in the *Annals of Surgery*, describes a dry method of operating as practiced by Dr. Landerer, of Leipsic, and reported by him in a paper before the late Congress of Surgeons in Berlin. The method consists in not allowing a drop of fluid of any kind to come in contact with the wound during the operation. The hands of the operator and the field of operation are cleansed first with soap and water and then with a 1-2000 solution of sublimate in alcohol. As soon as the first incision is made no more fluid is allowed to come in contact with the wound. Sponging is done

with pieces of sublimated (absorbent) gauze, and all parts are kept tamponed with it, except at the point where the surgeon is working. Hemorrhage is much lessened by this method; hardly any vessels in the muscles require ligation. As soon as the operation is finished and the larger arteries are tied, the wound is to be kept tamponed for a few minutes with gauze, after which it presents absolutely dry surfaces, and is in excellent condition to unite primarily. Buried sutures are used to bring the deeper portions together; the skin is united by sutures. No drainage tubes are applied, but all the blood finally forced out of the wound by direct pressure. There is no secretion whatever, so that no care need be taken to evacuate it. Even cavities may be treated in this manner (as after castration) provided the walls can come together. The dressings are to be applied under moderate pressure of the bandage. The advantages claimed for this method by the author are the following: (1) The patient does not get at all wet or chilled. (2) Hemorrhage is minimized. In cases of amputation of the breast, where the axillary glands were removed, the towel placed beneath the shoulder was not even wet. (3) No antiseptic substances are absorbed, and therefore no intoxication is possible. (Sterilized gauze would be even safer to use.) (4) The duration of operations is shortened, because there is not so much time spent in controlling hemorrhage. (5) Rapid and safe recovery. In the ninety cases of the author he never once observed a flush around the wound; the temperature never once rose above 100.4°. There is no secretion from the wound, so that only one change is necessary to remove the stitches. The patients are not prostrated, even after larger operations, such as excision of the breast and axillary glands, and can be up and about as soon as the effects of the anæsthetic are passed. (6) Great convenience of the method. Instead of big bottles, unreliable dishes and fluids, as are met with in country practice, well-packed gauze may be carried along in a small tin or glass vessel, thus simplifying matters greatly for the general paactitioner. (7) The hands of the surgeon are not harmed or roughened, which is a great comfort. The author reports 90 cases, mostly all major surgical operations, such as amputations, resections, laparotomies, extirpations of tumors, osteotomies, plastic operations on the nerves, etc. They were performed partly in his private hospital, partly in city and country practice, and partly in a crowded dispensary.

Creasote for Diseases of the Air Passages.—Dr. William Perry Watson (*Virginia Med. Monthly*, Oct., 1889) reports his results in fifty cases. While creasote will not cure all cases of consumption, yet it will benefit nearly all. In cases with simply consolidation before the "breaking down" process begins, it seems to arrest the diseased process; further investigation will be required to ascertain its permanent utility, although simi-

lar cases observed for a long time by Robinson and Flint would convince us that the improvement was lasting. In acute and chronic diseases of the bronchi it was very beneficial, cases of the former being quickly cured, while those of the latter were improved sufficiently for them to leave the hospital in a short time. The more constantly the inhaler was worn, the internal mixture taken, the more marked was the improvement. To obtain the full benefits of this treatment the system should be saturated with the creasote as rapidly as possible. Combined with good hygienic and dietetic surroundings, it is the most promising treatment of consumption in the laboring classes we yet possess. —*Medical News.*

Antiseptic Midwifery.—1st. Disinfect thoroughly your hands and genitalia of patient before making a vaginal examination.

2d. Disinfect thoroughly all instruments which must come in contact with any part of the parturient canal

3d. Use vaginal injections before delivery where there is an unhealthy discharge or where the labor is protracted or instrumentation is necessary.

4th. If hands are introduced into vagina after delivery, use vaginal injections.

5th. If necessary to introduce hands or instruments into uterus before or after delivery, use intra-uterine injections.

6th. Apply "antiseptic pad" after thoroughly washing off the external parts with 1-1000 bichloride solution.

7th. When necessary to introduce a catheter after delivery, always expose and thoroughly cleanse the parts beforehand.

8th. Where the antisepsis has been thorough and puerperal fever supervenes, wash out the uterus not oftener than twice daily as long as indicated.—*Dr. F. W. McRae.*

Boric Acid and Alcohol for Acne.—Dr. Sarah E. Post (*Medical News*) : The face is bathed at night in hot water containing a few drops of ammonia; no soap is used; it is then rinsed in cold water and dried. The solution is then applied, being sopped on with the corner of the handkerchief, or soft, clean rag. In the morning the solution is again applied without washing the face, and several times during the day if the skin becomes moist. In very bad cases apply a little ether and remove the comedones with the extractor at the time of the visit. Within a week great improvement may be obtained. The solution consists of half an ounce of boric acid in eight ounces of alcohol, to which a little perfume may be added, if desired. Unlike most applications to the skin, this forms an elegant toilet preparation.—*Weekly Med. Rev.*

Influenza in Berlin.—On January 12th the total number of cases was estimated at 400,000, with 650 deaths.

Deaths in New York state during the year 1889, according to summary of the figures given in the *Monthly Bulletin of the State Board of Health*, were 104,233. At an estimated population of 5,750,000, the death-rate was 18.65 per 1,000; but reports of 3,000 deaths were received too late for insertion, making the whole number of deaths, 107,233. Almost 80,000 of the population made no return of vital statistics, and those are disregarded in the estimate of population. The statistics indicate a higher mortality-rate in the cities generally than in the towns and rural districts. Thus, in twenty-eight cities, with an aggregate population of 3,442,000, there were 77,990 deaths, while in the rest of the state with a population of 2,308,000, there were but 26,243 deaths reported; or, in other words, a city death-rate of 26.06 per 1,000 of the population, and a country death-rate of 13 per 1,000. How much of this difference may be due to less complete reports from the rural districts can only be conjectured. Acute respiratory diseases caused the largest number of deaths, 13,633; and consumption came next with 12,390 deaths, while diseases of the nervous system caused 11,266 deaths. 8,284 persons died of diarrhœal diseases; 6,886 of diseases of the circulatory system; 6,501 of diseases of the digestive system; 5,980 of old age; 5,855 of croup and diphtheria; 5,732 of diseases of the genito-urinary system; 3,834 from accidents and violence; 2,638 of cancer; 2,107 of scarlet fever, and 1,550 of typhoid fever. The greatest number of deaths in a single month was 10,806 in July, and the smallest number, 7,825, in November.

Cities upon the Hudson and its tributaries are beginning to be alarmed at the deterioration of their water supplies, and it is now necessary to decide whether the river shall be used as a common sewer, to the destruction of much property, such as water-works, ice-establishments, etc., with the consequent search for new water supplies—in some instances extremely difficult to find—and construction of new work, often necessarily experimental in character and therefore expensive; or whether purification of sewage from old and new systems shall be insisted upon, with the attendant expense of establishing and maintaining such a plan.—*Boston Med. and Surg. Journal.*

Ether in Lead Colic.—In lead colic, A. Torre Brest uses "rectal inhalations" of ether as a palliative. A small vial containing about five grammes of ether is fitted up with a rubber tube terminating in a rectal tip. The bottle having been placed in a vessel containing warm water, the rectal tip is introduced into the bowel. In a few minutes the colic ceases, about one gramme of ether having been consumed. After this the administration of thirty grammes of castor oil, associated with rectal irrigation, will soon cause abundant evacuations.—*Deut. Med. Zeit.*

To handle the eyes (be it ever so gently) after death, is apt to leave discolorations. Make a compress of several folds of linen, and, after closing the eyes, apply to the lids till the undertaker takes charge of the body.

In a case where it fell to my lot to lay out the body, I packed both rectum and vagina as carefully as possible with cotton, but, whether from the nature of the disease or from what cause I do not know, it was impossible to prevent constant purging. When the undertaker arrived, he said that no undertaker for the past ten years had used any thing for that purpose but common table salt. The method is, after washing carefully, to fill as much as possible both vagina and rectum with table salt. Take a handful and press closely to the parts; then put two or three handfuls close to the body inside the napkin. He told me that it made no difference what distance the body was to be carried, there would be no unpleasant results if it was cared for in this manner; that the salt acted as an astringent to the discharges. This method is far less work, and at the same time neater and more effectual. —*E. M. S., New Haven, Ct., in Trained Nurse.*

An Inhaler.—Coil a piece of paper into the shape of a cigarette, and fix it with gum. Then insert into one end a small uncompressed piece of absorbent cotton-wool, upon which a drop or two of the desired medicament has been poured. Air is now drawn through the tube by the patient, who holds the other end between his lips. This plan is by many patients, especially by men, preferred to the use of any form of respirator, or to inhalations mingled with steam. These last, moreover, have a relaxing effect in some atonic conditions of the throat. Such remedies as compound tincture of benzoin, methyl, oil of eucalyptus, etc, may be used with this device. Oil of peppermint was found to give great satisfaction, inhaled in this manner, in a case of pulmonary consumption.—*Trained Nurse.*

Solvine is the name of a new substance formed by mixing sulphuric acid and castor oil, removing the excess of acid, dissolving the residue in water, and treating a precipitate, which gradually falls, with a mineral acid. The resultant liquid is of a clear yellow color and of oleaginous consistence. The substance possesses very marked solvent properties, and passes readily through animal and vegetable membranes, being therefore absorbable by the skin. It is said to dissolve the red blood-globules when injected hypodermically, and is thus not to be regarded as a very safe substance for use in ointments. Indeed, very pronounced toxic symptoms are reported to have followed the application of a solution of naphthol and solvine to the mucous membrane. Berlioz, who presented the substance at a recent meeting of the Therapeutical Society in Paris, proposed to call it sulphoricinic acid.—*Med. Record.*

Albany Medical Annals.

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W. J. NELLIS, M.D., W. G. MACDONALD, M.D.

VOLUME XI. NUMBER 2. | FEBRUARY, 1890. | SUBSCRIPTION, $1.00 A YEAR.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Eighty-fourth annual session, held in the City Hall, Albany, Tuesday, Wednesday and Thursday, February 4, 5 and 6, 1890.

After the president's inaugural address, by Dr. Daniel Lewis, of New York, various committees were appointed and reports were received.

An unusually large number of papers were read during the meeting, the programme being arranged as far as possible by topics.

On Wednesday afternoon the committee on the president's inaugural address made a report favoring the adoption of its recommendations, and also this resolution :

Resolved, That the members of the Medical Society of the State of New York, which has represented the medical profession of the state these eighty-five years, without any reference to political opinions or affiliations, and merely guided by their scientific convictions as experts in medical matters and their sense of duty and the dictates of conscience as citizens, entreat and urge the members of the Legislature, without distinction of party or local interest, to pass the bill referring to the pauper insane as presented by the State Charities Aid Association, and thus terminate a condition the horrors of which, as detailed in the annual report of the State Commission in Lunacy, appear to be irretrievably connected with the county care of the insane.

The report and the resolution were adopted, and it was ordered that a copy of the latter be transmitted to the president of the Senate, speaker of the Assembly, State Lunacy Commission, and the State Board of Charities

A REPORT ON LEGISLATION.

Dr. D. B. St. John Roosa presented the report of the committee on legislation. The committee, in its review of the work accomplished and remaining unaccomplished, say that "an act to prevent blindness," based upon a resolution introduced by Dr. Howe, of Buffalo, making it incumbent upon midwives to report cases of ophthalmics of the newborn, within six hours, to the health officer, has been introduced in both branches of the Legislature, and unless a number of midwives should be organized against it, the probabilities are that the bill will become a law. All plans for the passage of a bill regulating the practice of medicine in the state with a view to having the largest body of practitioners accorded the greatest representation on the Board of State Examiners have been tried, but in vain. It seemed to the committee that it will be utterly impossible to pass any bill in the face of the opposition that has been created against the various enactments of the State Medical Society. The committee contends that the principle advocated by this society, in effect that the state should control the practice of medicine, should be maintained as a step in the direction of wise government; and in keeping with this determination suggest that a bill be formulated for the appointment of a State Board of Examiners of nine persons, who are graduated doctors of medicine of ten years' standing, to be selected by the Board of Regents regardless of their creed or party in medicine and uninfluenced by the action of any body of practitioners.

ADDRESS OF PRESIDENT LEWIS.

President Lewis delivered the annual address in the Senate chamber of the State Capitol on Wednesday evening. He said in substance :

A profession which aims to supply a universal human want thereby secures merited public recognition. The medical profession has secured the meed of favor it now receives by an earnest effort to meet such a demand. Yet we must agree that the medical profession, in many important particulars, is not what its devoted disciples deem worthy of recorded achievements or prospective conquests.

In the many discusions regarding its proper place among the applied sciences, both physicians and laymen yet characterize it as an inexact science. There are many reasons why the designation is unjust.

MEDICAL SCIENCE IS EXACT.

If we accept the definition of science as "knowledge duly arranged and referred to general rules and principles on which it is founded," we may certainly class medicine among the seven sciences of the ancients.

There can be no science based upon more absolute facts than the circulation of the blood, the functions of the nerve centres, the delicate chemistry of respiration, and the laws which govern nutrition and the growth of tissue. The science of medicine is incomplete, and the principles underlying it are uplifted, it is true, to some extent, by the vital forces; so also are the calculations based upon mathematical astronomy oftentimes modified and corrected by personal equation.

One of our chief aims should be to secure proper recognition of the scientific exactness which forms to-day the basis for all successful applications of the healing art. The proper determination of this intimate relation between the science and the art of medicine requires breadth of mind and habits of deduction which can be secured only by thorough academic training. It is on account of such liberal culture among the masters of our profession that it has with unanimous consent been classed with divinity and law as a learned profession.

PREPARATORY EDUCATION.

The president then referred to the fact that heretofore the medical colleges exacted few or no requirements from those who desired to begin the study of medicine. He properly called this neglect a radical defect in the educational system. The examination recently prescribed by the board of regents for beginners in the study of medicine would remedy this defect to a certain extent; but, in his opinion, it is not sufficiently comprehensive.

It should be the aim of the medical society to do all in its power to secure the strict enforcement of the law requiring such an examination, until the medical colleges themselves shall compel candidates for admission to present a degree from a general college.

MEDICAL COLLEGES.

All medical colleges should teach not only the "regular" system of practice, but also the system taught in the homœopathic and eclectic schools, if, indeed, there can be any such system as these schools profess to teach. Still, he thought there must be something worth knowing in homœopathy, and it should be taught to all students, who may then be left to determine the value of its principles. The "regular" or allopathic school places no restriction upon the application or form of remedies, its only test being that of experience in regard to the effects of the means employed. Nothing can be more liberal in any branch of science or art; nothing can give broader scope for the exer-

cise of human judgment in these matters than is allowed by the code of ethics which governs the Medical Society of the State of New York. There can be no real antagonism in science; the "old school" bears no animosity against the "new school;" it has no desire to crush out or even to persecute homœopathy. All methods and schemes, whatever their name, should be made to conform to true scientific principles. If every medical school would drop sectarianism and teach all there is of rational medicine, humanity would be benefited and science would be promoted.

Reference was next made to the necessity of a state examining board to examine all candidates for admission to practice, and to grant license to those who successfully passed the examination. In order to insure fairness to all, each existing school of medicine should have a representative on the board. Such a board is especially necessary in the case of foreigners who come here and ask for license to practice as physicians upon the presentation of diplomas from European colleges, which may be valid, but which never tell whether they are in possession of their original owners. The speaker instanced the case of a Chinese doctor who was admitted to practice in this state upon presentation of a diploma issued in China and properly endorsed under the present law, and added that it would be safe to say that the endorser of that diploma could not testify in court whether it was in fact an evidence of the so-called doctor's professional acquirements, or whether it was a somewhat unusually elaborate laundry bill.

The same difficulties which exist in determining the qualifications of foreigners, in many instances apply also to graduates of colleges in the United States. Yet the great schools of medicine, which have kept abreast of the growth of medical science, have no reason to fear such an examination.

OBJECTIONS TO A STATE LICENSE.

Objections to a state license have been raised by the so-called homœopathic school; a fund has been contributed to defeat the wicked State Medical Society in its attempt to destroy homœopathy, and the public has been informed that this proposed law is simply an effort to injure the hoœopathists. No one can justly claim that such a board will, in any sense, infringe upon the rights of any one to practice medicine as he sees fit, provided he possesses the requisite knowledge. That is all we ask by this enactment. The applicant is not known to examiners even by name. He may elect what school of practice he will be examined in, and representatives of at least three schools will examine his papers, which then become a public record.

The speaker took up other objections that have been urged against the proposed law, and showed wherein they are fallacious, and asserted that this great reform must be brought about by the legislative branch of the government.

PHYSICIAN AND PATIENT.

Our present relations to our patients are not ideal ones in many respects. Of course I am speaking of the typical family physician. The specialist has no peculiar confidential relations with his patients.

At the present time the public requirements are not only unlimited, as I have indicated, but in some instances are positively unreasonable. We are constantly called upon by patients who have transgressed every known law of health, and then expect us to give them a dose of medicine that will repair the damage. They will attend a supper at which all imaginable preparations of indigestible food and drink are mingled, and expect us to cure an aching head or acute dyspepsia the next morning. Others will transgress every known law of hereditary disease, and then expect the doctor to conduct a tuberculous child, for example, into a healthy manhood.

INTEGRITY OF THE PROFESSION.

The speaker then stated that doctors are frequently asked to do a wrong, or aid in doing it, and asserted that few physicians yield to such solicitations. He ventured to say that no other 80,000 men of any one class could be found in America among whom so few scandals affecting their integrity occur. In this connection Dr. Lewis said that it is commonly remarked that we are not business men. I am glad of it. Whenever we see a physician who has the business faculty unduly cultivated and exercised, we find one whose professional opinions are not always safe or reliable.

In conclusion the speaker said :

ARE OUR SERVICES PROPERLY APPRECIATED BY THE PUBLIC ?

When we consider the fact that the ranks are becoming more and more crowded every year, that one-third of those who commence the study of medicine are obliged to abandon it for some other calling, and that the pecuniary rewards of those who remain faithful to their professional work are extremely small compared with the income from business, we are sometimes tempted to answer the question in the negative. The struggle which every young practitioner is obliged to engage in, owing to the vast and largely increasing number of charitable institutions, which would be our chief glory if patronized only by the deserving poor, strengthen the doubt as to whether the doctor's services are appreciated.

We can all recall instances when unexpected disaster has overtaken a man struggling in a doubtful battle against death. When courage had fled and the last spark of hope almost expired, the anxiously awaited physician arrives. Confidence is restored, courage returns to the patient and his friends, glimmering hope becomes a radiant reality, and a victory as great as Sheridan's at

Cedar Creek has been won. If we consider the value of a human life, one such conquest is a greater compensation to the true physician than any possible pecuniary reward.

The annual dinner took place at the Delavan House on Wednesday evening.

The first toast, "The Clergy," was responded to by A. V. Raymond, D.D., of the Fourth Presbyterian Church. "The Legal Profession" was responded to by Mr. Joseph A. Lawson. Dr. Delavan Bloodgood spoke for "The Medical Profession in the Navy," Senator Fassett for "The Senate," Mr. St. Clair McKelway for "The Newspaper Tramp," Dr. D. B. St. John Roosa for "The Specialist," and Dr. A. Jacobi for "The State."

Following are officers for ensuing year: President, Dr. William Warren Potter, Buffalo; vice-president, Dr. L. S. Pilcher, Brooklyn; secretary, Dr. Frederic C. Curtis, Albany; treasurer, Dr. Charles H Porter, Albany.

BOOK NOTICES.

SPINAL CONCUSSION: Surgically Considered as a Cause of Spinal Injury, and Neurologically Restricted to a Certain Symptom Group, for which is suggested the designation Erichsen's Disease, as one form of the Traumatic Neuroses. S. V. Clevenger, M D., Chicago, Ill., Author of Comparative Physiology and Psychology, etc. 359 octavo pages, 30 wood engravings; cloth, $2.50. Philadelphia and London: F. A. Davis, Publisher. 1889.

"That the spinal sympathetic nervous system is the main seat of the disease, and that in consequence the cord functions are deranged, accounts, in the author's opinion, for much, if not all, that has been hitherto unexplainable. These views are original and were not heretofore advanced, for they were based upon quite recently discovered symptomatology and an exclusion of previous error in diagnosis, which would not, until this time, have enabled any such conclusion to have been reached."

"The author regrets the unavoidable polemics of parts of the book, though it is by controversy that the truth is often evolved from error; and his strong feeling against the political corruption in our country is explained by its opposition to all progress through the mediocrity and ignorance in most of our public institutions, scientific and medical,—placed there by men of like character."—*Preface.*

EXCHANGES.

Kansas Medical Catalogue, Fort Scott, Kas.

Medical Free Press (Ectectic), Indianapolis, Ind.

Medical Mirror. I. N. Love, M.D., editor, St. Louis, Mo.

The Dixie Doctor. T. H. Huzza, M D., editor, Atlanta, Ga.

St. Louis Courier of Medicine, Sixth and Walnut streets, St. Louis, Mo.

Het Oosten. Weekly Journal of Christian Philanthropy. Nijmegen, Holland.

The Nightingale. Sarah E. Post, M.D., Editor, 13 W. 42d street, New York.

Current Comment and Legal Miscellany. D. B. Canfield Co. (Limited), Philadelphia.

Journal of Heredity. Mary Weeks Burnett, M.D., editor, 1 Central Music Hall, Chicago, Ill.

Braithwaite's Retrospect, January, 1890. Half-yearly parts, $1.50. W. A. Townsend, New York.

PERSONAL.

—Dr. George A. Pierce ('72), of Lebanon Springs, died January 23, after a few days' illness.

—Dr. W. E. Rogers has moved from Rexford Flats to No. 25 Yates Street, Schenectady, N. Y.

—Dr. James Kelley ('68), Shavertown, Delaware county, N. Y. See his advertisement in this number.

—Dr. Thomas H. King ('55), Machias, Cattaraugus county, N. Y., died November 5, 1889, aged 65.

—Dr. Adelbert W. Witter ('88) has moved from Fort Hunter N. Y., to Quaker Street, Schenectady county, N. Y.

—Dr. Charles H. Moore ('87) concluded a special course in New York in the study of ophthalmology and otology last year, and is now associated in practice with Dr. C. S. Merrill, 23 Washington avenue, Albany.

—Dr. Oscar H. Young ('58), Constantine, Mich., died January 29, aged 54. Dr. Young was resident surgeon in the Albany Hospital two years; served in 177th N. Y. Volunteers. Was tendered the position of deputy health officer of New York in 1867, but declined on account of his health. He had been in the drug business in Constantine for a number of years.

—Dr. Andrew H. Bayard ('89), 32 Washington street, Poughkeepsie, N. Y.

—Dr. Frank A. Bell ('89), Oneonta, N. Y.

—Dr. Howard F. Bonesteel ('89), Troy, N. Y.

—Dr. James E. Brennan ('89), Albany Hospital, Albany, N. Y.

—Dr. Charles G. Briggs ('89), St. Peter's Hospital, Albany, N. Y.

—Dr. Henry W. Brown ('89), Grafton, Mass.

—Dr. Marshall A. Burt ('89), Nelliston, Montgomery county, N. Y.

—Dr. William M. Campbell ('89), Waterford, N. Y.

—Dr. Samuel Chesebrough ('89), Glens Falls, N. Y.

—Dr. Charles H. Callender ('89), New Boston, Mass.

—Dr. F. S. Deyoe ('89), Westkill, Greene county, N. Y.

—Dr. R. F. Duncan ('89), Pleasant Valley, Dutchess county, N. Y.

—Dr. R. Furman, Jr. ('89), Schenectady, N. Y.

—Dr. F. C. Gorham ('89), New Haven, Conn.

—Dr. C. E. Greenman ('89), South Troy, N. Y.

—Dr. G. W. Gregory ('89), Troy, Bradford county, Penn.

—Dr. J. B. Kennah ('89), West Albany, N. Y.

—Dr. George E. Lochner ('89), Albany Hospital, Albany, N. Y.

—Dr. Wilbur F. Lamont ('89). Catskill, N. Y.

—Dr. Archibald G. Losee, Albany Medical College, Albany, N. Y.

—Dr. Clive C. McCullough ('89), Harpersville, N. Y.

—Dr. Emmett Niver ('89), Craryville, Columbia county, N. Y.

—Dr. Charles W. Nichols ('89), Amsterdam, N. Y.

—Dr. Alonzo T. Powell ('89), Coeymans Hollow, Albany county, N. Y.

—Dr. Jesse Wood Roscoe ('89), Carlisle, Rhode Island.

—Dr. Alanson D. Rose ('89), Charlestown, R. I.

—Dr. William Rufus Seeber ('89), Medford, Otsego county, N. Y.

—Dr. James Ezra Smith ('89), 246 Washington avenue, Albany, N. Y.

—Dr. Marion Robert Smith ('89), McGranville, Cortland county, N. Y.

—Dr. Frank S. Snow ('89), Valatie, Columbia county, N. Y.

—Dr. Charles Wight Snyder ('89), Sheffield, Mass.

—Dr. Leonard J. Somers ('89), St. Peter's Hospital, Albany, N. Y.

—Dr. James Read Strang ('89), Ketchum's Corners, Saratoga county, N. Y.

—Dr. William Van Doren ('89), Quaker Street, N. Y.

—Dr. Thomas Cattin Washburn ('89), Spencer, Tioga county, N.Y.

ALBANY

MEDICAL ANNALS.

VOL. XI. MARCH, 1890. No. 3.

AN EXTENSION SPLINT FOR TREATMENT OF FRACTURES OF THE LEG, THE ARM AND FOREARM.*

BY P. R. FURBECK, M.D., GLOVERSVILLE, N. Y.

In the treatment of fractures, the object to be attained is the complete restoration of the parts to their normal condition. To accomplish this end, the indications are to place the ends of the broken bones in perfect apposition and there to retain them whilst nature may accomplish its work of reparation.

Muscles are endowed with the property of contraction, and when a fractured bone is reduced, this property of the muscles, unless counteracted, causes the fragments of the bones gradually to glide by each other, thereby shortening the limb and causing more or less pain and inflammation in the surrounding tissues. If, however, the limb is held in its normal position and extended to its normal length, the muscles, by their gentle and elastic pressure, bring the fractured ends in apposition, and we have the conditions for that most desired result, "union without deformity."

In fractures of the lower extremities, where the bed, as a splint, gives to the limb the requisite support, extension may be most satisfactorily maintained by the weight and pulley. The extending force is constant and uniform in its action, any slipping of the adhesive plasters being compensated for by a corresponding movement of the weight over the pulley; the force acts equally on two sides of the limb and in the direction of the axis of the limb, and it may be so adjusted as to perfectly counterbalance the contraction of the muscles and thus keep the limb extended to its normal length.

* Read before the Medical Society of the State of New York, February 5, 1890.

The *extension splint*, so called in explanation of its construction, is a combination of an extension apparatus (an endless screw and sliding bar) with an ordinary splint made of thin metal or wood, adapted in size and form to the limb to which it is to be applied.

Though employing the screw as its mechanical power, its action is very similar to that obtained by the weight and pulley. Its extending force may be varied without removing or renewing the dressings of the limb, and extension by it may thus be kept almost perfectly constant and uniform. Its action, like that of the weight and pulley, is exerted equally on two sides of the limb, and may be so increased or diminished as to fully overcome muscular contraction, and keeps the limb extended to its normal length.

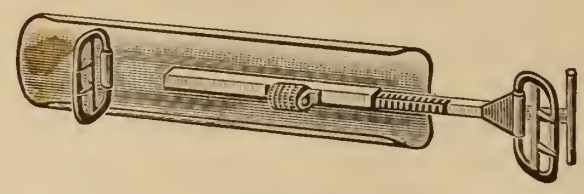

FIG. 1.

(*Scale one-eighth of an inch to an inch.*)

Outer convex face of extension splint for fore-arm, showing buckle for counter-extension at upper end of the splint, and at the lower end the buckle operated by a worm-screw for extension.

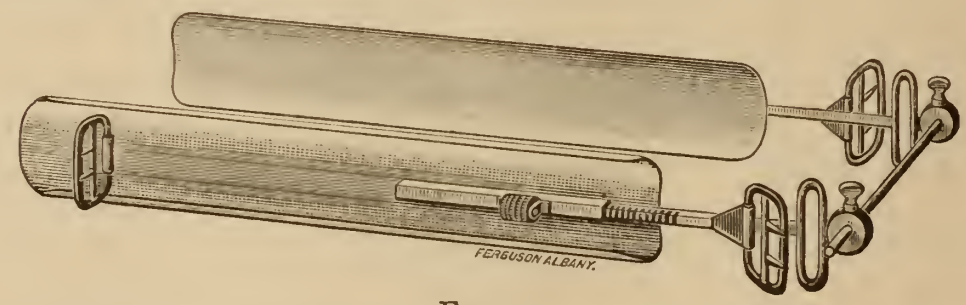

FIG. 2

Double splint (concave inner surfaces) for fracture of the leg, showing buckles and worm-screw to maintain extension, and cross-rod to unite the two splints below the foot and to protect the malleoli.

Its use does not necessitate confinement of the patient to the bed; its application is simple and easy; its practical working has been most satisfactory in the various cases in which it has been tested.

Its method of application is as follows: For fractures of fore-arm, take four strips of adhesive plaster about two inches wide and five inches long. Apply these strips longitudinally to both the inner and outer sides of the limb, about two inches above and two inches below the point of fracture, and hold them in place by a well-adjusted bandage, leaving free, unattached ends of plaster projecting toward the upper and lower ends of the limb. Make gentle extension of the

limb, reduce the fragments, apply the concave surface of the splint (Fig. 1) to the inner or outer side of the limb, connecting the free end of the upper strip of plaster with the buckle on the convex back of the splint, and the lower strip with the buckle on the back of the sliding bar, until the plasters firmly hold the limb extended to its normal length. Apply a second splint similarly on the other side. Secure the splints by bandage, leaving the screws uncovered. If in the course of a few days the plaster slips and the dressings loosen, make the desired extension of the limb and again extend the splint as before.

For fractures of the arm, usually but one splint is required, placed on the outer side of the limb to hold it in its normal direction and to make necessary extension.

For fractures of the leg (Fig. 2), apply adhesive plasters as in fractures of the fore-arm, reduce the fracture, pass the free end of each lower strip of plaster through the oval opening below the buckle, and connect the plasters with the buckles of the splints. In the leg-splint the lower end of the sliding bar has a small circular opening and a thumb screw. By means of a small bar passed through these openings, the splints may be firmly secured below the foot, and held at such a distance from each other as to wholly avoid pressure upon the malleoli.

PYÆMIA; A SEQUEL TO GONORRHŒA.*

By F. L. CLASSEN, M.D., Albany.
(*A. M. C.*, '81.)

The following case came under my observation eight months ago:

W. S., aged 32 years, stoutly built, came to my office having gonorrhœa. Nothing was given to arrest the discharge, but he was treated antiphlogistically. At the end of a week I was called to the patient's house, and found him presenting following symptoms: Headache, pains through both wrists and finger joints, also over sterno-clavicular articulations; temperature 102°; discharge from penis stopped. A diagnosis of gonorrhœal rheumatism was made, and the salicylates and potassium iodide prescribed. He seemed to be doing n cely during the next two weeks; temperature became normal, and he was apparently on the road to recovery; but at the beginning of the third week the aspect of

* Read before the Medical Society of the County of Albany, March 11, 1890.

the case changed, and he had recurrent chills, profuse sweats, great thirst, hurried respiration, anorexia; temperature ranged from 104° to 106°, with but slight remissions. From this time on, the temperature continued high, tongue became dry and brown, delirium followed, bed-sores formed, and at the end of the fourth week he died. The discharge from penis returned three days before death. No post-mortem held.

The literature on this subject is very meagre; the only cases I have been able to find are those reported by Dr. Roswell Park. He gives the history of an interesting case in the *Journal of Cutaneous and Genito-Urinary Diseases*, December, 1888, which occurred in his practice, and presents many of the features similar to the case I report. In speaking of the bacteria and the influence of these organisms in the production of septicæmia and pyæmia, he says: "The gonococcus itself is cultivated with great difficulty, and I have never been able to get a pure culture of it, or one with which I could work with any satisfaction, but I have time and again made cultures from the pus discharged in cases of gonorrhœa of all degrees of severity, from the freshest to the oldest, without reference to the gonococcus, and have invariably succeeded in finding one or more forms of the common pyogenic bacteria such as staphylococcus albus and aureus." And again: "We have only to suppose that which we know does in many cases occur, that is, a phlebitis either in the neighborhood of the urethra or the prostatic plexus. Once this phlebitis has been aroused the circumstances in no way differ from those attending any case of pyæmia, except so far as concerns the mere accident of location. Minute thrombi form as a result of the inflammation of the vein, and these thrombi speedily becoming infected, are carried to the right side of the heart, perhaps even without causing thrombosis of the larger veins, and from the heart are distributed all over the body, manifesting as is well known, a peculiar preference for the synovial membranes."

Operations upon the deep urethra have been followed by septic trouble, but where the discharge is confined to the anterior urethra, pyæmia as a direct sequel is rare. Dr. Park quotes Bockhart as saying that the great rarity of these pyæmic cases is due to the properties of the white blood corpuscles, by which the wandering of the organisms away from the urethra is usually combated and defeated.

This was a very instructive case to me as showing the possibilities of acute gonorrhœa.

DISCUSSION.

[REPORTED BY W. G. MACDONALD, M.D., SECRETARY.]

Dr. S. A. RUSSELL: I have been greatly interested in the case just reported, yet, from the symptoms detailed, I believe there is some doubt of the correctness of the diagnosis.

Dr. E. A. BARTLETT: The reports of such simple cases are valuable in pointing out to us the severe and sometimes fatal complications which occur even in simple diseases. I am of the opinion that the administration of small doses of mercuric chloride might be beneficial in combating the systemic poisoning in pyæmia. I think it possible to disinfect the system in this manner.

Dr. H. HUN: Since Dr. Classen read his paper I have learned that I saw the case reported, in consultation, shortly before death. I am of the opinion that the kidneys were largely at fault. As regards the administration of mercuric chloride for the purpose of systemic disinfection, it is altogether futile. I am familiar with experiments made by the administration of this agent to animals. Where any amount approaching sufficient proportions to be germicidal was administered, death from mercurial poisoning followed.

Dr. A. VANDER VEER: I think we should have cases of this kind reported more frequently. Pyæmia does occur as a sequel of gonorrhœa. Dr. Roswell Parks has written very instructively on this subject. I have in mind several cases, especially, of a lesser degree of sepsis. Gonorrhœal rheumatism is essentially a septic condition.

ABSTRACTA.

TREATMENT OF HIP-JOINT DISEASE.—Dr. John Ridlon (*New York Medical Journal*, Feb. 15, 1890): The subject of treatment of hip-joint disease is narrowed down to fixation and traction. If traction is to be used at all, it should be constant and uninterrupted, and in one and the same line. Traction at a right line at one time and at a right angle at another, as is permitted by most forms of traction apparatus, cannot be free from harm; and the push and pull action of all traction hip-splints during locomotion must be seriously condemned. Splints, to be sure, have been devised to the end of eliminating this pumping action at the joint, but, since they are neither used by their authors nor by any one else, their merit does not call for consideration.

As to the value of fixation, we are pretty nearly a unit. The old "American method" of motion without friction has passed away—*requiescat in pace*—and a new American school has arisen. We are members of that school. We believe in fixation first, last and all the time. We believe in traction, too, while there is pain from voluntary muscular spasm—traction with the patient in the recumbent position—traction constant and uninterrupted. But traction during locomotion as given by the traction hip-splint? That is a question that will bear some further discussion.

An inquiry into the results of any plan of treatment should, at the least, consider the mortality; the duration of treatment; the

general health during treatment; and, bearing directly upon this, the length of time patients are confined to bed; the frequency of abscesses which go on to operative interference or spontaneous opening; the ultimate condition of the limb as to usefulness; the amount of actual shortening—*i. e.*, shortening due to erosion, displacement and arrest of growth; the amount of apparent shortening—*i. e.*, the actual shortening plus the shortening dependent upon flexion and abduction; and, finally, the degree of motion at the joint.

Reliable statistics of any considerable number of cases treated by immobilization are wanting. Although Thomas's splint has now for some time been in pretty general use in England, but few patients have been treated by others than himself in a satisfactory way. Mr. Thomas's own cases have been in private practice, and records have been kept of only those showing some special point of interest. The records of his cases to which I have access give the time in bed from nine to fifty-two weeks, the average being twenty-two weeks; the duration of treatment, from twelve to thirty six months, the average being twenty one months. Abscesses are not infrequent, but I have no data on that point. He says that all patients that recover do so without flexion and without abduction. Shortening is present when there has been erosion and when the growth of the limb has been arrested by the disease. Ankylosis is only found when the inflammatory process has been exceptionally destructive. No one any longer maintains that the prolonged immobility to which he subjects his patients is in itself productive of ankylosis.

It has been my fortune to treat, or share in the treatment of, upward of 1,100 cases of hip disease with the long traction hip-splint. The convictions which I am about to express are founded upon a study of those cases, taken together with the statistics above quoted and others bearing in the same direction.

In conclusion, then, I would say that it does not appear to me that sufficient evidence has been presented to demonstrate that the results of the use of the traction hip-splint are any better than, or as good as, those obtained by any purely fixative apparatus; nor does it appear that the results are any better than those where the "expectant treatment" or no treatment has been employed; nor has it been shown that the use of the traction splint shortens the disease. On the other hand, the statistics quoted have shown that it does *not* prevent actual shortening from arrested growth, from erosion of bone, and from subluxation; that it does *not* prevent stiffness at the joint. It has also been shown to *cause* in-knee and super-extension at the knee by stretching the ligaments, and weakness and talipes equinus at the ankle.

The most often repeated, if not the only, charges made by the tractionists against pure fixation (without traction) is that it does not so quickly relieve the pain—a point yet not proved—and that it favors actual shortening from erosion of bone. The statement

that pure fixation removes apparent shortening by preventing flexion and abduction they do not object to. And the statement that fixation does not induce ankylosis in a tubercular joint is no longer questioned.

Routine treatment of any kind should be condemned, whether it be traction or fixation, or simply making the leg a pendent member, or waiting for Nature's cure. Each case should be treated on its merits, and its indications should be followed in so far as the surrounding circumstances and the means at hand will permit. As Dr. Charles Fayette Taylor once so aptly said : "It is absurd to speak of an instrument for hip disease. There can be no one complete instrument for hip disease.".

Tuberculosis and Butcher's Meat.—The *Nineteenth Century* for September, 1889, contains an article by Henry Behrend, a Hebrew physician of London, relating to the Hebrew method of butchering and inspecting meat. If the statements therein made are facts, they show (1) the great advantage of rigid meat inspections as a means of preventing tuberculosis; (2) an alarming proportion of diseased animals; and (3) an equally alarming lack of altruism in the Hebrew race as regards other races.

We quote a few of the statements : "Of 13,116 beeves slaughtered for the Hebrew trade in London in six months, only 6,973 were deemed fit for Jewish use." "The average rejections for five years have been forty per cent. But these rejections are often sold to the Gentiles for food." "In a large practice of over thirty years he has never met a case of consumption in a Jew, and other busy physicians make similar statements."—*American Microscopical Journal.*

Aphrodisiac Effects from Cocaine.—Dr. C. W. Richardson, Philadelphia, reports a case of a married lady, modest and reserved, from whom he proposed to remove a growth under cocaine anæsthesia. A few minims of a ten-per-cent. solution were injected. This was followed by erotic excitement, with both facial and verbal expressions that left no doubt in the mind of the medical attendant and of the lady's companion as to the impulses which actuated them. It required some time to bring her to even a moderate degree of quietness. An attempt to perform the operation the following day, using the cocaine very sparingly, led to a similar, though not so extreme, condition. No other unpleasant symptoms occurred on either occasion. Surgeons are warned of the development of these symptoms, not only by this case, but by the published observations of Sandré of Vienna, Cunningham of England, and others. Particular attention is called to the medico-legal aspect of the subject. A female friend of the patient should be present whenever it is proposed to operate upon a woman under cocaine anæsthesia.—*Journal American Medical Association.*

Treatment of Gall-Stones by Chloroform Injections into the Gall-Bladder.—In July, 1888, was called to see Mr. D., aged 45 years, and found him suffering with an attack of gall-stones. After using the usual means recommended, including the internal use of chloroform *per vias naturales*, without relief, I explained the probability of relief by injecting chloroform directly into the gall sac hypodermatically. He being willing, I injected one-half drachm of Squibb's chloroform into the gall-bladder, or as near as I could determine without making an incision. The relief was immediate; the clay-colored stools disappeared, and he was soon quite well. In this case gall-stones were passed in a previous attack. In a second case the injeclion was repeated after five days.

We think this a safe procedure and not attended with danger, even if the mistake is made of injecting the chloroform into the liver or into the peritoneal cavity. As additional evidence of the safety we have made experiments on a dog. These injections were made in the presence of Dr. Guibor (who kindly furnished the dog), Dr. McClintock, and Dr. Donaldson of Topeka. One-half drachm was thrown into the liver and one drachm into the peritoneal cavity; these injections were not followed by any unpleasant symptoms. We have also the high testimony of Robert Bartholow, who has recommended that the gall-bladder be aspirated and the solvent injected without withdrawing the needle, but so far as I know no cases have been given illustrating the practical application of this method. Should we fail in giving relief, we can by laparotomy expose the gall-bladder and inject into the sac. Should this fail, we have still the more dangerous expedient of opening or extirpating the gall-bladder. The surgeon should be familiar with the anatomy of the parts by dissection. Strict antiseptic precautions should be observed. The needle should be the finest possible and longer than the ordinary hypodermic needle.—*S. G. Stewart, in Kansas Medical Journal.*

Infantile Convulsions.—A correspondent of the *British Medical Journal* writes: "For an infant a few months old I begin with a hundredth of a grain of nitrate of pilocarpine three times a day, and gradually increase to a twelfth of a grain, which dose I have frequently given to a child one year old. I never inject it subcutaneously, and do not think the hypodermic method a good one in infancy. The rectum ought to be used more frequently in infantile therapeutics and diagnosis."

For Sea-Sickness.—About twenty breaths should be taken each minute, and as deep as possible. After thirty or forty inspirations have been taken, the symptoms will be found to abate, and in a few minutes will be found to disappear altogether. If the symptoms reappear, the deep breathing should at once be resorted to.—*Good Health.*

THAT INFLUENZA AND CHOLERA are bound together by any relationship making a cholera epidemic imminent, has been generally scouted by those medical journals (the *Lancet* included) which have mentioned the coincidence between the several occurrences of the two diseases. Professor Zdekauer, a medical authority of St. Petersburg, is inclined to regard the danger as by no means a remote one. It has been his lot to see four epidemics of cholera, in the years 1839, 1848, 1866 and 1884; in each case an epidemic of influenza occurred in the year preceding the cholera visitation, and he fears that the influenza germ, "after passing the winter upon our soil, will spread the cholera next spring." As a safeguard he advises unusual attention to sanitary matters in the Russian capital, so that if the cholera does come it will find the city in the best condition for resistance to the disease. Professor Zdekauer calls attention to the fact that cholera flourishes most in countries like Italy and Spain where but little attention is paid to sanitation, while in England, where the public health is closely looked after, cholera never makes much headway.—*Northwestern Lancet.*

ACTION OF SALICYLATE OF SODA ON THE UTERUS.—Dr. M. Wacker has recently published a series of cases in which salicylate of sodium was administered to women either for its antirheumatic or antithermic effects, or in metrorrhagia, or for dysmenorrhœa. He administered it to two pregnant women, one in the second and the other in the fourth month, in each of whom the daily administration of 45 grains produced abortion; in six lying-in women the administration of salicylate of sodium occasioned metrorrhagia and increased very greatly the flow of blood then existing, and, in fact, in one case led to the production of fatal hemorrhage occurring on the fifth day after delivery. In five other cases salicylate of sodium administered immediately or a little after the menstrual period to calm dysmenorrhœa, produced the return of the menses without relieving the suffering. Nevertheless, in nineteen out of thirty-three cases of dysmenorrhœa a favorable result was obtained through the administration of the salicylate of sodium. The abortive action of salicylate of sodium appears to be incontestable, and the author attributes it to the great congestion of the uterus which it occasions.—*Therapeutic Gazette.*

CURE FOR A COLD.—S. Wilson Hope (*British Medical Journal*) says that twenty grains of salicylic acid, in liq. ammon. acet. three or four times a day, will so far control a common cold that the aching of the brow, eyelids, etc., and pain during movements of the eye, will cease in a few hours, while the sneezing and running from the nose will also abate, and will disappear in a few days; and, more fortunate still, the cold will pass off, and not finish up, as is customary, with a cough.

Asthma.—Nothing in my experience is equal to the nitrite of sodium in from three to five-grain doses, frequently repeated. With regard to hyoscyamus in this affection, as well as in other diseases, I find that the ordinary doses are of little benefit. Two drachms of the tincture or of the succus for a single dose should be prescribed, and not less than one drachm when frequently repeated. Besides having an influence over many spasmodic affections, it has a most tranquilizing influence on the mind. Given alone in asthma it will not relieve the spasm, but in combination with the nitrite of sodium, the improved condition of the patient is sometimes simply marvelous.—*T. Frederick Pearse, M.D., F.R.C.S., in The Lancet.*

Strophanthus in Asthma.—Dr. Drzewiecki has successfully employed strophanthus, in ten minim doses during the attacks of asthma. He has arrested the attacks for a long time by giving it at intervals for some time three times a day. The physiological explanation proposed is that strophantine lessens the excitability of the vagus.—*The Satellite.*

Clay-colored stools are commonly attributed to a deficiency of bile in the intestinal canal, and form one of the chief symptoms upon which is founded the diagnosis of obstruction to the common duct from the liver and pancreas. No doubt is cast upon the correctness of the inference that the obstruction to the common duct is the cause of the clay-colored stools, but some observations made by Walker, of London, go to show that the secretion of the pancreas is as important as bile in the production of the hydrobilirubin which gives to the fæces their charcteristic color. Walker cites two cases in which during life the stools were always colorless or at the most very pale yellow; at the autopsies it was found in both cases that the bile ducts were free, while the pancreatic ducts were closed. Experimental studies also showed that hydrobilirubin is the product of the reaction of the pancreatic secretion upon the bile, and that in the absence of the former the coloring matters of the bile are absorbed by the intestines.—*Northwestern Lancet.*

Antipyrin in Labor.—Prof. Paolo Negri, director of the Obstetrical Clinique at Venice says (1) that antipyrin used during parturition has never in his hands produced any ill effect whatever; (2) that in the majority of cases it was of great use, so much so that in his clinic antipyrin has now for several months past replaced every other drug ordinarily employed to relieve the pain of uterine contraction during labor.

Carbolic Acid Poisoning.—Common soap, given as soon as possible and continued as long as there are any toxic symptoms, is an efficient antidote.—*Trained Nurse.*

ALBANY MEDICAL COLLEGE.

Seventeenth Annual Meeting of the Association of the Alumni—Fifty-Eighth Commencement.

The Alumni Association of the Albany Medical College met Wednesday morning, March 19, in Alumni Hall, after an informal reception in the College Library. A larger number than usual were present.

President Wey ('49), of Elmira, N. Y., called the meeting to order.

Dr. Henry Hun made the

ADDRESS OF WELCOME,

on behalf of the Faculty of the College, in which he said that each member of this association is in honor bound to work for the good of this college. "You, as alumni, winning success and fame, not only benefit yourselves, but thereby do your duty toward the college in the best possible manner. We, the faculty, have the no less important duty of elevating the standard of medical education in the school to as high a point as possible, and of doing all in our power to turn out men so thoroughly educated that you will be proud to welcome them as professional brethren.

"During many years we have expended the scanty revenue of the college mainly in improvements in the building, which is now in excellent condition. More important than that, we have constantly added to the curriculum until now there are more subjects taught, and we believe more thoroughly taught, than ever before in the history of the college. We do not intend to stop in the good work.

A NEW CURRICULUM NECESSARY.

"We have now with our multiplicity of lectures and with our three-years' course quite overgrown this old curriculum, and, notwithstanding extra lectures at extra hours and recitations in the evening, it is impossible to get along under our present management. A change is imperatively necessary. The faculty are now earnestly considering the arrangement of a new curriculum with a complete and practical three-year graded arrangement of studies. The whole plan is still indefinite and has not yet taken shape.

"Not only are we, as members of the faculty, desirous of improving the instruction given in our school, but we are also anxious to have any laws passed which will raise the standard of medical education. We are heartily in favor of having the license to practice medicine conferred by a State Board of Medi-

cal Examiners, provided only that the examinations shall be just and uniform for all applicants. We are also in full sympathy with the law passed last year, requiring evidence of a certain degree of general education before a student can attend medical lectures, and while wishing that it may be amended in certain minor details, are anxious that it shall neither be repealed nor emasculated. This matter of preliminary education is most important, and we would urge you to explain to those who intend to study medicine the necessity of acquiring as intimate a knowledge as they can of natural philosophy—a knowledge which will be of inestimable value to them throughout their course of medical study."

PRESIDENT WEY'S ADDRESS.

Dr. William C. Wey ('49), of Elmira, president of the Association, delivered the annual address, at the conclusion of which he welcomed the graduating class into the fellowship of the Alumni Association.

TOTAL MEMBERSHIP.

Dr. Willis G. Tucker ('70) presented the report of the secretary and executive committee. These showed the total membership of the Alumni to be 1,144, an increase of 33 over that of last year. The total graduates of the college number 1828.

Treasurer Dr. Selwyn A. Russell ('77) reported receipts of $165.83; expenditures, $89.89.

Dr. E. A. Bartlett ('79), historian of the Association, reported nineteen deaths during the past year.

AS TO MEDICAL LEGISLATION.

Dr. Herman Bendell ('62) favored the medical examination bill now pending before the Legislature. He said the society was simply interested in having a competent board of examiners. The fair bill was met with an unfair one. To save the rightful measure it was important that agressive steps should be taken. He then moved that the society heartily and warmly approve and recommend the passage of the medical examination bill endorsed by the State Medical Society. This was adopted and a committee appointed, with Dr. Bendell as chairman, to prepare a statement for presentation to the Legislature.

CLASS VALEDICTORIAN.

Dr. J. A. Cutter ('86) said he desired to have removed from the class politics the selection by it of the valedictorian. His class got into a row over the selection, and finally the man selected was one who had been "plucked." He offered the following, which was adopted:

Resolved, That this Alumni Association respectfully request the faculty to consider the advisability of taking the appointment of the valedictorian and essayist from the graduating class to its own body.

Brief addresses were made by Dr. Lewis W. Pendleton ('64), Prof. H. E. Webster, President-elect Burton ('53). Prof. Webster said he had never realized, before he heard the historian's report, that physicians ever died.

THE NEW OFFICERS.

Upon the report of the committee the following were elected officers: President, Matthew H. Burton ('53); vice-presidents, John E. Comfort ('64), John H. Colter ('78), Leander Swartout ('80), Henry Lansing ('64), Horace R. Powell ('82); recording secretary, Willis G. Tucker ('70); corresponding secretary, Chas. M. Culver ('81); treasurer, Selwyn A. Russell ('77); historian, Ezra A. Bartlett; executive committee to serve three years, Albert Vander Veer ('62), Lorenzo Hale ('68), James D. Craig ('84), Thomas H. Willard ('87).

THE COMMENCEMENT EXERCISES

of the Medical College took place in Harmanus Bleecker Hall, beginning at three o'clock in the afternoon. There was a large audience, notwithstanding the unpleasant weather. Harrison E. Webster, president of Union University, presided. Stubblebine's orchestra played an overture, after which the Rev. James McLeod opened the exercises with prayer. George Griffin Lewis read the class essay, and Dr. S. H. Freeman ('46) presented the curators' report.

THE GRADUATES.

President Webster then conferred degrees upon the following graduates: Will Augustine Alexander, Frank Melville Clement, Edward Vincent Colbert, Clement Salts Crosby, John Emmons De Mund, Melville Day Dickinson, James Francis Earley, William Henry Happel, Frederic William Loughran, Walter Graham Murphy, James Henry Tobin, Albany; Horatio Seymour Ansley, Geneva; Robert Brittain, Ridgebury; Alfred Royce Brundage, Mongaup Valley; Willis Sylvester Cobb, West Stockbridge, Mass.; Edward Barnard Coburn, Troy; Frederick Crounse, Jr., Altamont; Charles De La Montayne, Marbletown; Thomas Henry Flynn, New Brunswick, N. J.; John Philip Gilligan, Elizabethtown; John Adelbert Hagar, Fonda; Frank Morgan Hall, Luzerne; Thomas Helme, McKownville; John Houghton, Hecla; John Warner Kniskern, Carlisle; Michael J. Lawler, Sand Bank; George Griffin Lewis, Amsterdam; Robert Samuel Lindsay, North Hannibal; James Henry Lyons, John Joseph Lyons, Schaghticoke; Seth Adelbert Mereness, Carlisle; George Tomlinson Moston, Wavertown; Arthur Guernsey Root, Greenfield, Mass.; Edgar Seymour Simpkins, Middleburgh; Minot Alpheus Steele, Nashaua, N. H.; John Jay Sullivan, Victory Mills; Ichabod Thomas Sutton, Windham.

"THE PHYSICIAN AND HIS NEIGHBOR"

was the subject of Dr. L. W. Pendleton's address to the graduates. It is just twenty-five years ago that the speaker graduated from this college.

After a selection by the orchestra, James Henry Lyons delivered the valedictory. The report on prizes and appointments closed the exercises.

THE CLASS OFFICERS.

President, Thomas H. Flynn; vice-president, Minot A. Steele; secretary, Thomas Helme; treasurer, George T. Moston; valedictorian, James H. Lyons; alternate, John A. Hagar; essayist, George G. Lewis; alternate, John P. Gilligan; orator, Charles De La Montayne; historian, Horatio S. Ansley; poet, Melville D. Dickinson; prophet, Clement S. Crosby; marshal, Willis S. Cobb; executive committee, Edward V. Colbert, chairman, Horatio S. Ansley, Edward B. Coburn, Robert S. Lindsay, Harvey W. Van Allen; ushers, William J. Kernan, William N. Knowlton, Edward Joslin, John C. Brown, Michael F. Phelan, Harmon A. Staley, Robert B. Lamb, Harry S. Pearse, Arthur Sautter, Clement F. Theisen, Frederic A. Williams, Louis Le Brun.

APPOINTMENTS IN THE HOSPITALS.

St. Peter's, James H. Tobin, house surgeon; M. D. Dickinson, house physician. Albany Hospital, William H. Happel and J. W. Kniskern.

Dr. Albert Vander Veer in his report on

THE AWARD OF PRIZES

said that he wished to say just a word concerning the good done by the offering of prizes. He said: The prizes for this year are greater in number than ever before, proving conclusively the interest felt on the part of friends of the college, and I report with pleasure a number of new ones proffered. In September, 1889, Mrs. Gertrude Wendell Vander Poel, widow of the late S. Oakley Vander Poel, M.D., Professor of the Practice of Medicine for many years in this institution, gave $1,000 to the college, the interest to be devoted to the purchase of a practical working microscope, to be given the student passing the best bedside examination in general medicine. Since receipt of this sum the accumulated interest is not sufficient to warrant the purchase of such an instrument; therefore the prize will not be awarded until 1891. The surgical prizes have been continued since 1876, and are as follows: For the best report of the surgical clinics, the prize is given by myself; the second prize for the next best report is donated by Professors Hailes and Morrow, and will now be awarded by the chairman of the committee, Dr. J. D. Craig, with Dr. Thomas Willard, who have been kind enough to examine the reports that have been handed in. As an evidence of the amount of work that has been done at these clinics the re-

ports show that since 1876 there has been a total of over 2,000 cases presented, over two-thirds of whom have required some severe form of operation, these operations consisting in the relief or amelioration of almost every form of surgical disease known to the human frame.

[The Vander Veer prize for the best report of surgical clinics was then awarded to William N. Knowlton ('91); Hailes-Morrow prize (second), Walter H. Conley ('91); honorable mention, J. H. Timmers ('91)].

Prof. C. S. Merrill, M.D., has for a long time given a prize consisting of an ophthalmoscopic case for the best report of his eye and ear clinic. In his absence I report Mr. Thomas H. Flynn as entitled to this reward.

Dr. T. W. Nellis, one of our oldest graduates, has for a long time given a valuable prize, consisting of a case of surgical instruments, to the student passing the best final examination on graduation. The vote of the faculty this year is in favor of Mr. S. A. Mereness.

Prof. Franklin Townsend, Jr., in his department, has also given a prize for some time, and in the three different sets of notes of the "Lectures on Physiology" that have been handed in for the past college year it was found, on careful perusal, that those of "Althaire" bore evidence of great diligence and study. Two were manifestly superior, one of these written by "Erasistratus" having many points of excellence which the others did not contain. To "Erasistratus," therefore, the prize is cheerfully given. At the same time the "Notes on Physiology," handed in by the gentleman who styles himself "The Writer," are considered so admirable, although possibly not so complete and free as those written by "Erasistratus," that they are deemed worthy not only of mention, but of a more solid recognition in the way of a second prize. The notes by "Medulla Oblongata" are worthy of honorable mention.

Townsend prizes for best report of lectures: First, William J. Kernan ('91); second, Michael F. Phelan ('91); honorable mention, J. H. Timmers.

Prof. J. P. Boyd, M.D., has this year eastablished two obstetrical prizes to be given the two students of the senior class passing the best first and second examinations, and who have made the best report in obstetrics. The Boyd Prizes are awarded as follows: First prize, consisting of an obstetrical case, to Mr. John J. Sullivan, and the second prize, also consisting of an obstetrical case, to Mr. Edward Bernard Coburn.

Prof. J. M. Bigelow, M.D., at the commencement of the present session, offered two prizes in cash for the best preparation, dried, of the pharynx, larynx and œsophagus, and for the best dried preparation of the nose and naso-pharynx. The object of these prizes was to interest the students in the study and diseases of the throat and nose, as well as to familiarize them with the anat-

omy of these parts. For the best preparation of the larynx, fifteen dollars in gold, and for the best preparation of the nose, etc, ten dollars in gold were offered. The committee appointed to award these prizes decide that, of the specimens presented of the larynx, the one submitted by the person signing himself "Peter Probang" is deserving of especial praise, and to him is awarded the first prize. Of the competitors for the prize for sections of the skull, one is of superior merit, which shows a very intelligent appreciation of the complicated structure of the parts. To this gentleman, signing himself "IXL. XXV.," the second prize is awarded.

Bigelow prize for best preparation of specimens of throat, William N. Knowlton; for best specimens of head and nose, J. W. Joslin.

I am also pleased to report that an alumnus of the college, Dr. Horace R. Powell ('82), of Poughkeepsie, N. Y., who has always taken an active interest in his *alma mater*, has established what is to be known as the "Thesis Prize," to be given the student presenting the best thesis, and consisting of a very complete case of antiseptic instruments, for use in many of the operations necessary in surgery. This is to be granted on the recommendation of the board of censors, and in their opinion the best thesis is on "Intubation of the Larynx," by Arthur G. Root; therefore to this gentleman is the prize presented; honorable mention, Frank M. Clement, M. A. Steele, E. B. Coburn.

I report with much pleasure that Dr. A. B. Huested & Co., of this city, have also established a prize, to be given next year, consisting of Prof. Gross' complete pocket case of instruments, to junior student passing the best examination in all of the primary studies.

THE ANNUAL BANQUET.

On Wednesday evening the members of the Alumni Association of the Albany Medical College assembled at the Delavan House to enjoy the annual banquet.

The assemblage was larger than at any similar previous occasion. The number was not far short of four hundred.

The outpouring of eloquence began early—before 10 o'clock. Dr. Wey ('49), the outgoing president of the Association, acted as toastmaster.

Dr. M. H. Burton ('53), president-elect, of Troy, was called upon for remarks, and responded briefly.

President Webster, of Union University, was the second speaker. He spoke briefly, and made a special point of impressing upon the alumni that it is their duty to give their most hearty support to the institution to which they largely owe whatever of success they may have attained.

Dr. William Hailes ('70) was next brought to his feet by the toastmaster. The topic assigned to him was "The Faculty of the Albany Medical College," and the speaker introduced a novel

effect in oratory by talking about a variety of subjects, and carefully avoiding the one given him for discussion.

The next speaker was the Rev. Dr. McLeod, who responded to "The Clergy." He said that he never saw a band of physicians together without wondering how they could leave their patients. He had noticed that they could never do so on Sunday morning. Possibly it was because their patients were in bad shape after Saturday night. In speaking of what is called "Christian science," he said that it wasn't Christian and it wasn't science; it was an abomination. His remarks were replete with dry humor and sound sense, and he sat down amid vociferous applause.

Joseph A. Lawson, "the young Napoleon of Albany oratory," was called upon to respond to "The Legal Profession." He told a few stories he had picked up during the day. "In fact," said he, "all my remarks have been picked up; they are just a few pearls which I have strung together and which I now cast before you."

George N. Southwick, editor of the *Evening Journal*, responded to "The Press."

Dr. William H. Bailey ('53) responded to "The ex-Presidents."

Dr. M. J. Lewi spoke on "Medical Legislation."

Dr. R. P. Bush, Assemblyman from Chemung, was next called upon, and responded briefly, but eloquently and wittily, and told several stories which he guaranteed to be true.

President William C. Wey ('49), of Elmira, responded to "The Medical Fraternity of Our Country."

Dr. L. W. Pendleton ('64), the orator at the afternoon's graduating exercises, responded briefly to a request for a few remarks.

Dr. S. B. Ward was the toastmaster's next victim, and responded in his usual happy manner.

The last speaker was Dr. Charles De La Montayne, who responded to "The Class of '90."

MEDICAL NEWS, ETC.

ALBANY, N. Y., *March* 1, 1890.

Editor Albany Medical Annals:

For the information of all concerned, I desire to state that the Medical Society of the State of New York offers a prize of one hundred dollars, payable from the Merritt H. Cash prize fund, for the best original essay on any medical or surgical subject.

The conditions are: That the competitors shall reside in the State of New York; that the essays shall be either printed or type-written; that each essay shall be designated by a motto on the title page; that a corresponding motto, together with the

name of the writer, shall be enclosed in a sealed envelope and attached to the essay; and that all essays shall be sent to the chairman of the committee on prize essays, Dr. George F. Shrady, New York, prior to January 1, 1891.

Other members of the committee are Drs. Daniel Lewis, of New York, and Eugene Beach, of Gloversville.

F. C. CURTIS, *Secretary.*

ASSOCIATION OF AMERICAN PHYSICIANS.

Following is the preliminary programme of the fifth annual meeting of the Association of American Physicians, to be held at the Army Medical Museum Building, Washington, D. C., May 20, 21 and 22, 1890:

1. The President's Inaugural Address, . .	SAMUEL C. BUSEY, Washington.
2. Consideration of the Revised Constitution.	

DISCUSSIONS.

3. Disturbance of Sleep, . .	*Referee*—S. WEIR MITCHELL, Philadelphia. *Co-Referee*—CHARLES F. FOLSOM, Boston.
4. Methods of Diagnosis in Diseases of the Stomach, . .	*Referee*—FRANCIS P. KINNICUTT, New York.

PAPERS.

5. Inflammations of the Appendix and Cæcum and the Duty of the Physician regarding them, ...	NORMAN BRIDGE, Chicago.
6. Anæsthetic and Non-Anæsthetic Hysteria,	CHARLES L. DANA, New York.
7. Seizures Characterized by Shock and Loss of Consciousness, ...	ISRAEL T. DANA, Portland.
8. The Diathetic Causes of Renal Inadequacy,	I. N. DANFORTH, Chicago.
9. Certain Points relating to Tricuspid Endocarditis, with Specimens, . . .	WILLIAM W. GANNETT, Boston.
10. Antisepsis in Midwifery, ...	WILLIAM T. LUSK, New York.
11. Varicose Aneurism of the Arch of the Aorta,	WILLLIAM PEPPER and J. P. C. GRIFFITH, Philadelphia.
12. Natural History of Typhoid Fever, . .	JAMES E. REEVES, Chattanooga.
13. What can and should be done to Limit the Prevalence of Tuberculosis in Man? .	EDWARD O. SHAKESPEARE, Philadelphia.
14. Migraine, ...	WHARTON SINKLER, Philadelphia.
15. Etiology of Pleurisy, especially in its Relation to Tuberculosis, ...	A. A. SMITH, New York.
16. Report of Cases of Angio-Neurotic Œdema,	SAMUEL B. WARD, Albany.
17. Demonstration of Pathological Specimens,	W. T. COUNCILMAN, Baltimore.

Tenth International Medical Congress.

The Tenth International Medical Congress will be held at Berlin, August 4 to 10, 1890. Those who take part must pay a subscription of 20 marks (£1, or $5) on being enrolled as members, and are entitled to a copy of the Transactions. Membership may be secured by sending the fee to the Treasurer, Dr. M. Bartels, Berlin, S. W., Leipzigerstrasse 75; enclose a visiting card, stating professional status and residence.

An International Medical and Scientific Exhibition will be held in Berlin, as an annex to the Tenth Congress. The exhibits will include apparatus pertaining to biology, spectral analysis, chemistry, electrotherapy, hygiene, etc., new foods, new models for hospitals, etc., etc. Rodolfo Virchow is President; E. von Bergmann, E. Leyden, W. Waldeyer, Vice-Presidents; O. Lassar, Secretary-General, Karlstrasse No. 19, Berlin, N. W., Germany.

Instruction in Hygiene.

Dr. John S. Billings, Surgeon U. S. A., and Dr. A. C. Abbott are giving a course of instruction in hygiene in the Johns Hopkins Hospital, Baltimore, during March, April and May. The course includes the physical, chemical and bacteriological properties of air, water and the ground, sewage disposal, inspection of milk and meat, studies in ventilation and heating, disinfection and sterilization, building sites and materials, clothing, etc.

The Old World.—De Potter's Practical Tourist Guide. Armand de Potter, editor and proprietor. Fletcher Vosburgh, assistant editor. American Bureau of Foreign Travel, established 1879, 675 Broadway, Albany, N. Y. De Potter's excursion tours for 1890–91. Pleasure, travel and observation; natural scenery, fine arts, archeology, history and legend; useful hints and principal routes of travel.

Travel in Europe.—Dr. H. S. Paine, 105 State street, Albany, has arranged for another of his popular European pleasure parties this season.

Round Trip to Europe for $110. A thirty-two days' journey of sight-seeing in Europe for $250 extra. All lists closed by June 1. Address Robert Newman, M.D., 68 West 36th street, New York.

Albany Medical Annals.

PUBLISHED MONTHLY BY THE

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BOOK NOTICES.

TEXT-BOOK OF MEDICAL CHEMISTRY. By Elias H. Bartley, B.S., M.D. Second Edition, revised and enlarged. Cloth, 12mo., pp. xii, 423, with 62 illustrations, $2.50. Philadelphia: P. Blakiston, Son & Co. 1890.

It is a pleasure to welcome a new edition of this excellent text-book, which easily ranks among the two or three best books of its kind extant. If it have a fault, it is one inseparable from a work of its class, namely, that of dealing with more subjects than can be in all respects thoroughly treated in the prescribed space, but this does not constitute a serious objection to the student who has access to larger treatises, and the number of students who now expect to find *every thing* in any one book is happily diminishing.

The present edition has been very carefully and judiciously prepared. The classification has been changed to bring it more in accordance with the periodic law, and much of the book has been rewritten and new articles, rendered necessary by recent advances in science, have been added. Toxicology and the ptomaïnes are more fully treated, and an excellent chapter on the testing of urine has been added. The appendix contains many very carefully prepared and exceedingly valuable tables; an excellent glossary of unusual chemical terms, with reference to pages where fuller explanation is given, covering fourteen pages, and a comprehensive index, thoroughly well made, brings the book to a close.

It is a book which can be confidently recommended to the student of medicine and pharmacy and to the medical man. It contains no

padding, and has not been made with paste-pot and shears, but it is a comprehensive, systematic treatise clearly written and well constructed throughout. In these days of much book-making it is indeed a pleasure to meet with such a genuine piece of work, and if the principles and facts of science were always as well presented, science teaching would be easier work for the instructor. Typographically the book has an attractive make-up. It is well printed, well illustrated and strongly and neatly bound. W. G. T.

A TEXT-BOOK OF DISEASES OF THE EYE. By Henry D. Noyes, A.M., M.D., Professor of Ophthalmology and Otology in Bellevue Hospital Medical College; Executive Surgeon to the N. Y. Eye and Ear Infirmary; recently President of the American Ophthalmological Society, etc., etc. Royal octavo, 733 pages, richly illustrated with chromo-lithographic plates and 236 engravings. Price, bound in extra muslin, $6.00; in sheep, $7.00. New York: William Wood & Company.

This admirable work by a world-renowned Nestor in ophthalmology will be in demand in the Old World and the New.

The volume is a mature outgrowth from a treatise published in 1881 in Wood's Library of Standard Medical Authors.

Mathematical formulæ have been omitted; pathology and microscopic anantomy and the influence of micro-organisms are presented *p. r. n.;* and the relations of the eye to the brain and nervous system, and to diseases of remote organs, and the reflex influence which the eye sometimes exerts upon distant parts have been set forth.

The general physician cannot "refuse to take in hand the ophthalmoscope, because he cannot afford to lose the benefit of what it can tell him either in discovery or in confirmation of what he wants to know."

EDUCATION AND CULTURE AS CORRELATED TO HEALTH AND DISEASES OF WOMEN. By J. A. C. Skene, M.D. 127 pages.

DIABETES. By A. H. Smith, M.D. 74 pages.

TREATISE ON FRACTURES. By Armand Despris, M.D. 112 pages, illustrated.

The above monographs are three recent issues of the "Physicians' Leisure Library," published by George S. Davis, Detroit. They are part of the fourth series of twelve numbers each. Price 25 cents each, paper; 50 cents, cloth; or $2.50 per set, paper; $5.00, cloth.

These publications bring the latest material of the best authors to hand at low price, and there is an advantage in having separate books for separate topics, instead of handling cumbrous volumes.

DISEASES OF CHILDREN. By J. F. Goodhart, M.D., F R.C.P., of Guy's Hospital. Rearranged and edited by Louis Starr, M D., of Philadelphia. "Students' Manual Series." 772 pages, 12mo, cloth, $3 00; leather, $3.50. Philadelphia: P. Blakiston, Son & Company.

This well-indexed and convenient volume is noticeable for the author's forcible descriptions and the resemblance of the text to actual bedside teaching. The subject of feeding infants and children has been well elaborated. Typical temperature charts and numerous formulæ are attractive features.

MONTHLY NURSING. By A. Worcester, A.M., M.D., Boston. 250 pages, 16mo. New York: D. Appleton & Co.

This book has grown out of a series of lectures to nurses at the Boston Lying-in Hospital in 1883, and is now published to meet the requirements of the nurses of the Waltham (Mass.) Training School. It is well printed, pleasant to read, and sound in its teachings.

ESSENTIALS OF GYNECOLOGY. By Edwin B Cragin, M.D., New York. Saunders' Question Compends, No. 10. 58 illustrations, 192 pages, 12mo, cloth, $1.00. Philadelphia: W. B. Saunders, 913 Walnut Street.

This is not offered for the thorough study of gynecology, but is a truly valuable aid in reviewing more extensive reading.

PAMPHLETS.

Malarial Keratitis. By C. J. Kipp, M.D., Newark, N. J.

Higher Medical Education. By R. H. Lewis, Raleigh, N. C.

Surgical Treatment of Volvulus. By N. Senn, M.D., Milwaukee.

Surgical Treatment of Erysipelas. By A. Seibert, M.D., Philadelphia.

Uterine Cancer; 367 Galvano-Cauteries. By J. Byrne, M.D., Brooklyn.

Enucleation of Tuberculous Glands. By T. W. Kay, M.D., Scranton, Pa.

Crooked and Otherwise Deformed Noses. J. B. Roberts, M.D., Philadelphia.

Report on Nostrums, Proprietary Medicines, etc. By N. Roe Bradner (A. M. C., '64), Philadelphia.

University of Toronto. Formal Opening of the New Building of the Biological Department, December 19, 1889.

Chronic Inversion of Uterus. Also, Hernia; Buried Antiseptic Animal Suture. By H. O. Marcy, M.D.

Report of Ninety-nine Cases of Rapid Dilatation of the Uterine Canal for the Cure of Dysmenorrhœa and Sterility. By F. Townsend, M.D., Albany.

A Case of Congenital Umbilical Hernia; Abdominal Section Six Hours after Delivery; Recovery. By Willis Goss Macdonald, M D., Albany. *American Journal of Obstetrics and Diseases of Women and Children.*

Chronic Inversion of the Uterus; Reduction by a New Method. Also, Cure of Hernia by the Use of Buried Antiseptic Animal Suture. By H. O. Marcy, A.M., M.D., LL.D., Boston. From *Jour. Am. Med. Ass'n.*

Journal de la Anatomie et de la Physiologie Normales et Pathologiques de l'Homme et des Animaux. Dirigé par MM. G. Pouchet, et Mathias Duval 26th year, 1890, 33 fr. a year. Felix Alcan, publisher, 108 boulevard Saint-Germain, Paris.

Hypnotism; its History and Present Development." By Fredrik Björnström, M.D., Professor of Psychiatry, Stockholm. Translated by Baron Nils Posse, M.G., Director of Boston School of Gymnastics. No. 113 of the Humboldt Library; double number, price 30 cents. Humboldt Publishing Co., 28 Lafayette Place, New York.

Revue de Chirurgié: Directeurs, MM. Ollier of Lyons, Verneuil of Paris. Rédacteurs en chef. MM. Nicaise and Terrier, of Paris. *Revue de Medicine:* Directeurs: MM. Bouchard, Charcot, Chaveau. Redacteurs in chef, MM. Landouzy and Lepine. Large octavo monthlies, each 23 fr. a year, or 40 fr. for both Address Felix Alcan, éditeur, 108 bouievard Saint-Germain, Paris.

Sewerage and Diphtheria, etc. (*Arch. Ped.*); Observations in Vienna (*West. Med. Rep.*); Puerperal Fever, Douche and Curette, etc. (Chicago Med. Soc.); Puerperal Fever (*Chic. Med. Jour. and Exam.*); Cephalæmatoma of Newborn (*Jour. Am. Med. Ass'n*); Infant Feeding (*Jour. Am. Med. Ass'n*); Cirrhosis of Pancreas (Ill. Med. Soc.); Inebriety—President's Address (Ill. Med. Soc. By Charles Warrington Earl, M.D., Chicago, Ill.

PERSONAL.

—Dr. Phineas H. Strong ('39), a leading physician in Buffalo, died at his home, No. 120 Niagara street, February 10, 1890, aged 73. He was born in Vermont in 1817, and began the study of medicine at Castleton in that state. He was the third president of the Alumni Association of the Albany Medical College, serving at the annual meeting of 1877. For several years Dr. Rial Strickland, of Enfield, Conn., Dr. W. H. Snyder, Jr., of Troy, N. Y., and Dr. Strong, of Buffalo, have been the sole survivors of the class of 1839, the first graduating class of the Albany Medical College.

Dr Strong settled in Buffalo in 1846. He served several years in the Buffalo General Hospital; in 1870, '71 and '72 gave courses of medical lectures at Harvard University, and in 1862 he served as army surgeon in the campaign in Maryland.

He was married in 1844 to Miss Eliza Ann Andrus, and in 1884 to Mrs. Kate E. Allen, all of Vermont. Three sons by his first wife lived to manhood, and a daughter married Mr. W. J. Mann. The pitiful death of Mrs. Mann and of her little daughter at the burning of the Richmond Hotel in 1887 will not soon be forgotten by the public.

Dr. Strong was one of the original members of the North Presbyterian Church, and his funeral was held in the church building.

The Erie County Medical Society held a special meeting to take action on the death of Dr. Strong.

—Dr. John Ashburton Cutter ('86), of New York city, gave an illustrated lecture to the Phi Sigma Kappa Society (Albany Medical College Chapter) and invited guests, Tuesday evening, March 18, at the society's rooms in Beaver Block. The subject was "Morphology of Blood, Sputum, etc." The illustrations were enlarged views of microphotographs thrown upon a screen. The same slides were used which were exhibited before the British Medical Association last year by the lecturer's father, Dr. Ephraim Cutter. After the photographs had been discussed, blood was taken from various persons in the audience and placed under the microscope, and the characteristic appearance of the rheumatic and of the tubercular diathesis in different specimens was pointed out.

—Dr. J. Montgomery Mosher ('89), assistant physician at the Willard Asylum, was married, Wednesday, March 12, to Miss Eleanor Chapin, at the residence of the bride's parents, Dr. and Mrs. Bassett Chapin, Philadelphia.

—Dr. George W. Gregory ('79), Troy, Bradford county, Pa.

—Dr. Hezekiah D. Fuller ('79), Seymour, Ontagamie county, Wis.

—Dr. Addison O. Roberts ('82) has removed from West Sandlake, to Bath-on-the-Hudson, Rensselaer county, N. Y.

—Dr. Charles G. Briggs ('89) has removed from St. Peter's Hospital, Albany, to Saratoga.

—Dr. Alphonzo Cajetan Dorval ('89), Whitehall, N. Y.

—Dr. Elmer Ellsworth Johnston ('89), Oneonta, Otsego county, N. Y.

—Dr. H. H. Hekimian ('89), has left Corning, N. Y., and returned to Asia.

—Dr. James B. Kennah ('89) has been appointed resident physician in St. Peter's Hospital, Albany.

—Dr. Robert F. Macfarlane ('88) has returned to Albany after a two years' sojourn in Europe.

—Dr. Walter Graham Murphy ('89), Albany Hospital.

—Dr. Jesse Wood Roscoe ('89), Carlisle, Schoharie county, N. Y.

—Dr. William Rufus Seeber ('89), Milford, Otsego county, N. Y.

—Dr. Marion Robert Smith ('89), McGrawville, Cortland county, N. Y.

—Dr. Merlin Jay Zeh ('89), West Troy, N. Y.

ALBANY

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THE PHYSICIAN AND HIS NEIGHBOR.

ADDRESS TO THE GRADUATING CLASS, ALBANY MEDICAL COLLEGE, COMMENCEMENT DAY, MARCH 19, 1890.

BY LEWIS W. PENDLETON, M.D., PORTLAND, MAINE.
(*A. M. C.*, '64.)

I see before me a band of young men who have been for years working in sympathy with each other and under the direction of other men. To-day that band is broken, and the work henceforth will be individual and separate. It interests the mind always to look upon numbers united in a common object, but when one views such a sight through the vista of years, and with the retrospect of one's own experience for a background, it thrills the heart.

To the mind of the sensitive and conscientious physician there is something at times appalling in the loneliness of his work. However able may be his counsellors and associates, there rests upon him, in the management of his own cases, an individual responsibility which makes his contest with disease a single-handed combat. You are not now fully conscious of the power that comes from sympathy and association, but when you have for years fought this single-handed combat with death and disease, you will realize my own emotions in addressing you on such an occasion as this.

I do not propose, however, to dwell upon the theme of your past relations to each other, nor will I attempt, to day, to supplement the able instruction you have here received, by a dissertation on any technical subject. I will give you a discursion rather than a discussion, and will invite you to walk out with me into the fields of practice and view your new profession in some of its social and external relations. The subject I propose for this afternoon is "The Physician and his Neighbor." In starting out upon our round of non-

professional visits, courtesy requires that we make our first call on the old doctor. You will carry into his presence the ardor of fresh enthusiasm. You will receive from him a cordial welcome, its warmth a little tempered by thoughts drawn from sober experience. It really requires a good deal of kindly feeling to harmonize the difference between the old doctor, who has salted down with his prejudices and old-time notions a wealth of practical wisdom and a store of sound common sense, and the young graduate, who is overflowing with expectation and yeasty with new theories. There is due the old man from the young man more respect of speech and deference of manner than is usually accorded. On the other side there is due the young man from the old man more of what he really has to give—practice. To one who needs dollars and cents there is something almost irritating in the bland condescension of the well-established man, and the interest he takes in suggesting a good field for him—say in Alaska or Oklahoma. The young man has words enough already, and he cannot always "look up and be hopeful, like a man drinking from a jug."

It would be well if the custom were more general than it is for the old doctor and the young to combine their forces. How pleasant for the old doctor, when the bell rings in the middle of a frosty night, to pull his night-cap a little closer over his ears and think, as the door slams behind his alert colleague, that it is healthy for young blood to be stirred.

The old-time preceptor has lost his grip on the student, but the summer school and the college cannot give the homely practical wisdom gathered in the daily round of visits, and it is not feasible for the young doctor to make that sort of instruction, which was once preliminary, supplementary to the school course?

I will not now detain you for that supplementary course, and we will pass on.

Going from one individual to another among the members of your profession, you will find them, altogether, a body of genial, resolute, self-denying men, devoted to their work and jealous of professional honor. Sometimes, alas! jealous of each other. It is notorious that the rivalries are more intense and the jealousies more bitter between members of our profession, especially when of the same age, than between those of other professions, and this fact it is hard to explain. The individuality of our work seems to be hardly a sufficient explanation, for, after all, there is a strong fraternal feeling lying deeper, which may never come to the surface except in time of need.

The spirit of competition between physicians, even where it runs highest, I feel sure is not incompatible with a strong regard, a respect for each other amounting oftentimes to veneration. If this competition has its origin in the struggle for fees, we might learn from our neighbor, the business man, something better than the spirit of trade. We really need to cultivate his habits of method, system and punctuality in matters of debit and credit. Here again the old form of studet life had an advantage over the present custom, in that it gave the student a taste of the science of economics while he kept his master's books and learned how to collect his bills.

One hundred thousand persons in the United States claim the title of Doctor, and several thousand graduates come from the medical schools each year, and yet we speak of the loneliness of the physician's work. The fact is, we do not strengthen, as we might, the possible bonds of association and intercourse. Ten men heartily combined are ten men raised to the tenth power. If our profession is a power for good, whatever coördinates our efforts enhances their value beyond measure. Institutions of charity and of education should not be the only means of uniting our forces. The County and State Associations deserve larger attendance and heartier support. Little clubs and coteries should be more frequently formed for reciprocal help and improvement. The last medical journal may seem more edifying than the trite discussion, the cosy seat by one's fireside may be more attractive than the dusty settee, but the general influence of these meetings will tell in the end, in the growth of mutual understanding, of cordial intimacy and neighborly feeling. The man who helps his fellow, as well as himself, who is generous in spite of the meanness and selfishness of his neighbor, is the one most likely to win and to hold success. After all, we must be guided, in our relations with one another, by native sense of right and honor, rather than by any formal code.

When we have made our duty-calls on members of our own profession, let us drop in upon those near neighbors who are most closely allied to us in other professions.

We are deeply indebted to the Journalist, the Pharmacist, the Botanist, the Scientist.

What an advantage does the medical journal, with its present high character, offer to the young man! He can store his mind with the wisdom of a multitude of practical workers, and his patients can reap the benefits of a wide experience, without waiting for his years to ripen. I think

one danger to their real merit threatens in the tendency to diffuseness and profuseness. A good deal of boiling down would suit the busy men, who snatch their reading as passengers on a railway snatch their meals. They want what they have concentrated, and yet digestible. Journals are multiplying very rapidly which are mere advertising mediums, the medical articles being nothing more than stuffing. In one such paper, recently, the editor, getting short of copy, printed the ten commandments, adding the words "by request." I may have assumed unjustly, in this instance, that this was done for stuffing. The editor may have been a stickler for the old codes.

The daily journalist ought to take more responsibility than he does in sifting medical advertisements, most of which are trash, some of them criminal. And the local items deserve a critical glance as well as the advertising column. No good physician includes printers' ink in his materia medica, and so long as our code excludes from the regular school all who frankly and honestly advertise in the newspapers, it is more than a matter of questionable taste—it is rank dishonor—for a regular physician to secure, by roundabout ways, gratuitous notice of his achievements.

It is only a few years since pharmacy became an independent science. Some of us can remember when doctors hung their attics with bunches of herbs, concocted and compounded their own remedies and dispensed them from huge saddle-bags. Now colleges of pharmacy abound, and graduate young men possessing knowledge of their work far superior to what could have been obtained, by a busy doctor, under the most favorable circumstances. It is interesting to note the spirit of adventure that has developed in this new profession. A zeal for bringing to light and to our use what has proved good in the hands of obscure tribes and distant nations has led to the expenditure of much money. They not only seize upon the observations of missionaries, the researches and discoveries of voyagers and travellers, but there are manufacturing pharmacists who keep men journeying through Central and South America for the express purpose of finding new remedies. Intelligent and scientific men, in other professions, have not thought it below their dignity to spend years in such research. Dr. Schwienfurth, well known as a botanist of high rank and noted as an explorer, was first led into "The Heart of Africa" in the interests of botany and pharmacy. Not that their work has been always beneficent, as witness the substitution of absinthe for quinine in the French army in Algiers, and its

deplorable results on the French nation. Unfortunately, too, their business enterprise sometimes outstrips their zeal for true science. There is too much haste to foist untried remedies on the market, the elixirs are weak, the tinctures inert, and far too much lard is rubbed into the mercurial ointment.

When the doctor refused to be longer hampered with his saddle-bags, and started off express, leaving them as freight behind him, he had no idea that the freight would so soon switch off to an independent line. But druggists are beginning now to usurp the functions of our profession. They frequently prescribe over the counter. They expose their remedies for sale, the wrappers and labels of which show doses and for what ailments they should be employed. I find on inquiry that it is a common habit for them to serve medicinal substances in soda water. Leaving out of the question the possible ill effects of soda water, I find that potassium bromide, aromatic spirits of ammonia, soda mint, sodium bicarbonate, acid phosphate, tinctures and elixirs are in very frequent demand.

The consumption of drugs in this country is assuming enormous proportions. Think of two hundred tons of the bromides and one hundred and fifty tons of chloral hydrate being used annually! Among the causes for this may be reckoned the overcrowding of the medical profession, the multiplicity of drug stores, the establishment of free dispensaries, patent medicine advertisements, and the desire of people for medicines to work cures upon derangements of digestion, while they maintain the cause of their trouble by over-eating and drinking. The public should be instructed how to properly estimate drugs and to regard every unknown medical agent as dangerous, if not positively endowed with harm.

The present drift of human thought is toward scientific enquiry. The phenomena which were perhaps formerly observed, but being regarded merely by the eye of idle curiosity, were again lost to human knowledge, now under the eye of the trained observer, yield fruit rich in utility. The use of lenses had long been known before the chance arrangement of them by a spectacle maker, for the amusement of his children, brought near the spire of a distant cathedral, and led to the invention of the telescope. The respiratory murmur and heart sounds had been heard many times before Laënnec, the lucky inventor of the stethoscope, heard them through his roll of paper. The incident which led to the development of Gray's telephone was an observa-

tion casually made by him in a bath-tub. Where formerly nature had only here and there an interpreter, there is now a vast army of well-trained minds reading her open page and searching into her deeper mysteries.

The genius and mechanical skill of the Electrician have given into our hands for the successful diagnosis and treatment of many diseases an agent which, until recently, was administered only by empirical men in an hap-hazard way. Two generations ago, men otherwise well educated, were absolutely ignorant of this subject. They knew nothing about the phenomena of self-induction, of the relation of electricity to nerve function, of the electrical resistance of the skin and other tissues of the body to the induced and especially to the constant current. The old practitioner had little guidance in the use of his clumsy battery. Whether his patient suffered from disease of the posterior or lateral columns of the cord, from paralysis, whatever variety of muscular contraction, affections of the general nervous system, of the eye, ear, or other organs of special sense, they received the same dose, always given in the same way. His idea of treatment by electricity was simply to give a shock. He knew nothing of the finer applications, as by electrolysis; and "interrupted current," with him, only signified the machine out of order. Now it is an every-day occurrence to divide a flash of lightning and use a part of it to split a hair. The appliances are changing and their application multiplying so rapidly that we can but wonder how the next generation will regard our view and use of the subtile fluid.

The Instrument-maker deserves a share of the credit usually ascribed to us in difficult operations. A modern case of instruments is no more like those with which Brodie and Cooper, Valentine Mott and Jonathan Warren did their work, than is a modern steam-plough like the old wooden affair with which Elisha's twelve yoke of oxen scratched the hills of Judea.

The Astronomer, once a near neighbor, moved out of the doctor's neighborhood one or two hundred years ago. There is no star-gazing done by the physician now, save by the country practitioner in his long night drive over the hills, but the time was when he studied the motion of the heavenly bodies and worked astrology for all it was worth. There are physicians in every age who, like the angler, consult not their own taste, but that of their fish, in choosing their bait. Our offices are now moved down to the ground floor, and the sign of Jupiter, which heads our prescriptions, in slightly altered form, is almost the only survival of the astronomical

doctor. Who knows but, in the revolving cycles, medicine and astronomy may be found again in conjunction, and students of medicine be searching star-dust for germs and microbes?

The doctor of the present day has a far easier time in some ways and a far harder time in others than his predecessor. For, while the results of the labor of our kindly neighbors are exceedingly helpful to the physician, they also make greater demands upon his time and energy, and require him to be ever on the alert to avail himself of them. We tire our lives out with the very means which are necessary for successful competition.

It is this excess of work that narrows many of our men down to specialism. It is a misfortune for a young man, no matter how talented he may be in one direction, that his practice should lie exclvsively in that direction. The knowledge of the human body is coming to be so exhaustive that the life of no one man is long enough to grasp it. The multiplication of new books, of new methods and new remedies makes knowledge bewildering. Specialism thus becomes a real necessity, and yet the influence of special practice is so narrowing that, whenever and wherever practicable, it should be combated.

The common forms of ordinary illness make up the burden of our work, and the good all-round doctor fills the largest place in the profession, and is the most apt to succeed if talent and opportunity afterward divert his energy into a special channel.

Bidding adieu to our scientific friends, let us now pay our respects to our neighbors of the so-called learned professions, the Instructor (for at the present day he must be included in the list), the Lawyer and the Clergyman.

The schoolmaster, in his care of youth during the most critical period of their lives, is brought into intimate relations with the doctor. In fact, the doctor is not always independent of his services, for himself. I remember that some years ago a letter of my own was returned by a patient in the country, with this indorsement: "Dear Doctor, I can't read this, my daughter can't read it, and we have called in the schoolmaster and he can't read it. Please try again."

One question that is always open between the schoolmaster and the doctor is this: Is the tendency of modern school life to impair or to promote the health of the next generation? This question is rarely pressed in the case of boys; it arises with reference to the education of girls. Their restrictions in out-of-door sports, the conventional

manners imposed upon them, the emotions mingling with and crowding into this period of their lives, all conspire to make the problem a complicated one for educator and physician. Extreme views on one side of this question have been popular of late among eminent physicians. Dr. Thomas says: "Unfortunately the restless, energetic and ambitious spirit which actuates the people of the United States has prompted a plan of education which, by its severity, creates a vast disproportion between the nervous and muscular systems, and its effects are more especially exerted upon the female sex, in which the tendency to this loss of balance is much more marked than in the man."

Dr. Clarke, in his "Sex in Education," in speaking of the influence of school life upon girls, says: "If these causes should continue for the next half century, and increase in the same ratio as they have for the last fifty years, it requires no prophet to foretell that the wives who are to be mothers in our republic must be drawn from transatlantic homes."

It was such quotations as these, made by Dr. Withers-Moore, that so startled the meeting of the British Association held a few years ago at Brighton, and that have led to a wide discussion of our school-system by English journals.

Statistics do not sustain these views. That admirable organization, the Massachusetts Bureau of Labor Statistics, took this question up some time ago. An elaborate schedule of questions was answered by over seven hundred woman's schools and colleges, and the total result was that the percentage of those to whom the course was physically beneficial was much greater than those to whom it was injurious.

Assuming that the school is a good one, its methods sound, its teachers wise and kind, its sanitary condition as good as that of the home of the pupil, and that it is better may generally be claimed, the question is limited to the effects of intellectual work itself.

What does a good school do for a girl? It gives her system and method. It takes her mind from herself and places her under a steady control, which she could not secure by efforts of her own will. In her going to and from school it secures to her daily and regular exercise in the open air. It secures to her the sympathy and society of those of her own age and the pleasurable excitement of emulation. All this is apart from the fact that intellectual activity is, in itself, conducive to bodily vigor, and that she may be gaining knowledge that will help her to a better understanding of her own body and the uses of her life. Is it not true that

when a physician is called to a young girl, somewhat ailing, his first advice usually is, "Take her out of school," without considering these advantages from which he takes her. It is only in rare instances that the parents have leisure to take up the work of the school, in addition to their usual cares, and then the question comes to the mother, "What shall I do with her?" The physician must consider that the girl has a mind as well as a body. If over-active, it will be excited too much, whether in school or not. Out of school, without control and in an irregular way, the mental work may be more detrimental. If the mind is dull, it will suffer from listlessness and apathy, its regular occupation being taken away. Do we physicians consider enough the great number of those whose health is not only unimpaired, but is promoted and confirmed by the regular and healthful exercise of school? We must remember that this period of life is one when illness is frequently connected with mental disturbance, and whatever conduces to real mental discipline strengthens bodily self-control. Is not a mind nourished

"With the fairy tales of science, and the long result of Time,"

more healthful than one occupied by the gossip of society and frivolities of fashion?

It is not my purpose to enter into a discussion of the higher education of women, but may not the objection sometimes made, of its tendency to repress physical development, be met by the claim that it tends rather to postpone maturity? Near the place where I once practiced, in an outlying district, a healthy pine upland having pure water, there were about forty families. The children had scanty school privileges. The people lived in a primitive way, and the girls were in the open air as much as the boys. The girls married at fifteen years, or under, and a more puny, sickly set, less fitted for maternal duties, I have never seen.

It is too soon, however, to pass judgment on the subject, when not a generation has gone by since the advantages of higher education were open to women.

In what we have said thus far about the school, we have assumed that its sanitary condition is good. To promote this is plainly a physician's public duty. There should be on every school-board well-educated physicians, and a more thorough system of medical inspection should be made the rule, both in public and private schools. Were this the case, more attention would be given to habits of sitting and standing, to the care of the eyes, to the worry and overwork attendant upon too much study at night.

The schoolmaster takes more kindly to our suggestions now than formerly. He no longer says, as of old, that he is not there to teach children to play. On the other hand, the foundation of education is now laid in childish sports and games. Much has been done, though not enough, to abridge the hours of mere intellectual work, to multiply recesses in the open air, in some cases to provide warm lunches, and, in the best schools, to secure regular and frequent exercise between the hours of recitation. In many instances industrial work has been introduced with good results. Habits of body are early formed, and it is a duty, long neglected by educators, to see that children are placed under favorable circumstances for forming them.

Nothing can be more unjust than to require those children who are to gain their future livelihood by manual labor to spend their early years in brain-work—training the reason and judgment before they are fairly developed, and leaving the eye and hand unskilled until the bodily habits are fixed. Too often a man grows out of school and all his life has to work with brain and conscience to do what he might have accomplished through his nervous ganglia, if he had had the right physical training.

The subject of athletics in schools and colleges requires a moment's consideration. The nature and uses of exercise have been, and are still, greatly misunderstood. What is needed is an education of the muscles, organs and functions of the body to such a standard of perfection that the brain may be aided, not hampered, in its working. The real object is not so much to be strong as to be well; not to lift great weights, travel great distances, row forty-two strokes to the minute, but to have a well-poised and symmetrical frame, a heart that never weakens in its regular pulsation, a nervous system that will hold its vigor under the surprises and depressions of real life.

Hard by the doctor lives the lawyer, generally opposite. They see little of each other except when the lawyer gets the doctor "on the hip" in the court-room, or the doctor gets the lawyer on his back in the sick-room. It is always nuts for the lawyer when he gets the screws on the doctor. How he delights in launching out hypothetical questions and submerging him with his own seeming contradictions! No knee-shaking, however, characterizes the tread of the doctor as he approaches the door of the sick-room. It makes a vast difference whether a man is "lying right up and down" or horizontal. "Where be his quibbles now, his quillets, his cases, his tenures and his tricks?" The

doctor dares even to look at his tongue, and finds it now no longer than any other man's.

Speaking seriously, our present relations with the bench and bar are so complicated as to give dissatisfaction to all concerned. We are called into court and are paid to testify as partisans, whereas expert testimony should be given wholly without bias. A record of the testimony of any case of importance furnishes the example of a public disagreement of witnesses called as experts, which tends to bring discredit upon that class of evidence. The possible effect of such contradictions upon the mind of judge and jury is obvious, and might readily lead to a miscarriage of justice. In the celebrated Hoyt will case the stand was occupied many days by prominent medical men, and thousands of dollars were paid therefor. The judge, in summing up, dismissed the whole matter of expert evidence with one sentence, saying that it was so contradictory and so evidently purchased that he could attach no weight to it whatever. This important practical point should be kept definitely before the profession, until their influence is used to have the law of expert evidence so changed that experts shall be summoned as witnesses of the court, rather than of the prosecution or defense. It would be unjust to attribute to the honorable and high-minded men who constitute the legal profession, as a whole, the custom, so prevalent, of hounding physicians by prosecutions for malpractice. But nine cases out of ten would never have been brought had not the original suggestion come to the patient from some shyster. No way has yet been invented by which the physician can bring the lawyer to book for his cases of malpractice. That errors are made in our profession we freely allow, but claim that they are quite as frequently made in the other.

But let us not forget that we are making neighborly visits, and that, though we must have our little tiffs with the lawyers, we are, after all, good friends. So we will give him a cordial handshake and a hearty expression of good-will, before we turn away to knock at the door of the Reverend Doctor.

It has been said that the study of medicine with its constant reference of effects to physical causes, leads the mind toward materialism, and it has sometimes been intimated that the theologian, in his far-sighted survey of the world of spirits, loses his insight into the affairs of the present. But however different the views and methods of the divine and the physician may be, they have strong bonds of sympathy in the nature and aims of their work itself. Both are healers

of men, and the occasions are many where they can aid and strengthen each other. Whatever tends to purify and ennoble the morals of a community tends toward health, and in measures of sanitary and social reform the minister and doctor stand side by side. It is true we are not very good church-goers and that the medical profession contains many sceptics, but the most sceptical of physicians never objects to a calm religious trust in the breast of his patient, and most of our number will gladly bear testimony to the efficient aid we have received, in our work, from the cheering counsel and sympathy of the wise pastor in the sick-room. It is something to be noted that, among the meddlesome visitors in the sick-room, the minister invariably observes the law of courteous reticence. In my own experience I have never known an exception nor heard a complaint on this score. While gladly paying tribute to his professional courtesy here, we wonder all the more at the ease with which nostrum-venders can borrow the names of most highly reputable clergymen for their hardly reputable wares. But this is a trifle. He has a much more serious charge to make against us. Notwithstanding that the general influence of the medical profession is toward temperance and morality, the religious teacher and reformer has a reasonable ground of complaint in the too general prescription of alcohol and opium by many physicians of the present day. There can be no successful practice of medicine without these remedies. Every intelligent practitioner knows that there is an absolute necessity for their frequent use. But many a man's life has been wrecked by the very appliance that has been cast to him as a life-preserver. Druggists tell me that when a physician prescribes a mixture containing alcohol, if it be at all palatable, the order to refill it usually comes again and again. Even more dangerous than the reckless use of alcohol is the inconsiderate prescription of opiates. The physician, tired and disgusted with the exaggerated complaints and imagined ills of a splenetic patient, is sometimes strongly tempted, for his own ease, to prescribe soothing remedies, not demanded by the disease itself. It is largely our fault, and an alarming fact, that the community is getting to be very familiar with the pleasurable comforts of opium, while there seems to be an imperfect knowledge, or utter disregard, of its baneful properties. Druggists sell it openly, without question. Patent medicines contain it, without published warning. Worst of all, it is fed to infants, often by mothers who little suspect what they give. One lately told me that she had given eleven bottles of Mrs.

Winslow's soothing syrup to a lusty looking boy of as many months. Analysis shows a grain of morphine to each bottle. Would it be a wonder if he takes kindly to that drug later on, if necessity should require its prescription? I know of a lad ten years old whose parents were lately dumfounded on finding that he was hoarding his pennies only to be spent for paregoric.

The modern training school for nurses will have much to answer for in the instruction they give and the facilities they offer for becoming familiar with the hypodermic syringe. When the young ladies get away from the restraints of their hospital life, I very much fear their womanly sympathy will lead them to resort early and often to this instrument, the use of which, I believe, the doctor should rarely yield to other hands than his own. The physician cannot justify himself in limiting his views of such remedies to their mere physical effects. He is bound in honor to hold in view their moral and mental results. Just here the doctor's place adjoins the minister's premises. On the other hand, the clergyman is often burdened, in his care of souls, by the gloom and depression of parishioners who need a change of diet more than a change of heart. As the doctor must keep in view moral effects, the clergyman must not be blind to physical causes.

From the interdependence of the learned professions each profession gains depth, breadth and solidity. As the general practitioner becomes a wider man than the specialist, so the professional man who cultivates close relations and active sympathy with men in other professions gains, from the contact, far more than he loses by attrition. It is also a good thing for a man to have an avocation as well as a vocation. Even a superficial knowledge of art, music or natural history may save a physician from himself, give him a fad, and so relieve tension. But we want no interdependence here. Let us have no amateur physicians.

Turning now to our critics, for we always have them among our neighbors, we find them generally among the well and strong. They call us hard-hearted, when none but kindly motives influence and possess us. In the matter of vivisection, for instance, according to the usual idea which is entertained, the physician is inhumane, wanton and cruel. They ignore the positive physiological and surgical knowledge which this act affords. What do they care that Galen, by this means, demonstrated the existence of blood in the arteries, that Harvey studied the movements of the heart, that Malpighi saw the capillary circulation in the lungs of

the frog? They do not know, or care, that our present precision in methods of physical diagnosis, such as auscultation and percussion, is largely due to the exposure of organs in the living animals. Practical men refuse to accept, as practical, the researches of Charles Bell, John Hunter, Claude Bernard, Pavy, Flint, Mitchell, Ferrier, Horsley, Fritsch, Hitzig and Goltz. Yet these diligent workers have brought out a far better knowledge of disease and placed modern surgery on much firmer ground. For the monkeys and cats whose brains have been exposed, untold generations will reap beneficent results. The discovery of anæsthesia called out a sentiment that shows that people are hard to please on either hand. When Sir James Y. Simpson, of Edinburgh, had introduced the use of chloroform in midwifery, a Scotch clergyman denounced the use of the anæsthetic as "a *decoy* of *Satan*, which apparently," he said, "offered itself to bless the woman, but in the end would harden society, and rob God of the deep, earnest cries for help, which arise in time of trouble."

It is assumed, by his critics, that the physician must become hardened and callous from his long association with pain, while in reality the contrary is the fact. We are not passive witnesses of this suffering. Every new case calls for new exertion and self-denial, and while experience gives firmness and self-control, it at the same time deepens and widens the power of sympathy. Of course no physician practices medicine for many years, if he be anything of a student of human nature, without being instructed, as well as amused, by the different phases of character shown by his neighbors. What lessons do we all learn by the bedside of patient sufferers, and what cheer comes to us from gratitude poured out in unstinted measure, often far beyond the value of service rendered. Is there any one of us who cannot say with Wordsworth—

> "I've heard of hearts unkind, kind deeds
> With coldness still returning;
> Alas! the gratitude of men
> Hath oftener left me mourning."

It is a common saying that half the world does not know how the other half lives. But the doctor visits high and low, goes from the mansion to the hovel, and sees all sides. He knows that the ostentatious subscriber to public calls often treats his family with niggardly parsimony; that the man who is considered a churl on 'change is yielding at home, and counts no sacrifice too great, no expenditure too lavish, for those he loves.

The painful scenes which we have to witness are soothed to us by the tenderness and love which they evoke. This intimate knowledge of families and family life opens up to us a world denied to others, and more than compensates for the deprivation of so-called society. Wealth and social position dwindle into small import when one stands beside the death-bed or the cradle. I have seen a mother struggling hard for existence, with a drunken husband and a large family of children, grieve over the death of an imbecile child as deeply as any mother could mourn for a child of promise, reared in wealth and luxury.

We generally usher a new arrival on this planet to quite as hearty a welcome in the house where the fare is poor and apparel scanty as where wealth and art have been freely bestowed in dainty devices for comfort. I have a picture in my memory of a night visit made to a house of two rooms in the country. There being no fences about, the horse was driven up to the only door and the hitch-rein taken inside. A pine knot from the fire, brandished in the air, did not give light enough to prevent my stepping on a yellow dog and stumbling over a trundle-bed full of children, into a pen built into the corner, full of more children. The absence of candlestick, wash basin, cup, teaspoon, and nearly every other comfort, except children, made me wonder how they could dispose of the new comer. An antiquated hair trunk was emptied of its contents, the few decent garments of the entire family, and I left the baby ensconced in it, the center of admiring surprise on the part of the children, and the object of happy congratulations on the part of the parents. There is no end to the pictures one can draw from his memory, pathetic, tragic, humorous and grotesque.

We do not forget that our desultory wanderings were limited, in the outset, to the social and external side of a physician's life. We are forbidden, therefore, by the scope of our remarks to linger at the bedside or to enter the hospital ward. It would be easy to extend our visits, but time brings us back to the occasion and the moment. And now at the end of our excursion, with its brief calls upon our neighbors and hasty glimpses at their affairs, we come back to the threshold of your own door, not to say adieu, but to bid you welcome to our number, to the arena of competition, to the field of our labor, to the rich and varied experience of active life.

Among those who join me in giving you this hearty greeting, I see, for the first time in twenty-five years, several of my own classmates, and I appeal to them to confirm me in

the statement that a physician's work, however arduous and exacting, is full of pleasures, triumphs and high rewards.

Life flows more swiftly now than twenty-five years ago. Its springs are deeper, its streams are broader, its currents more intricate, its channels more perplexing. Your life-work means more to you than ours could mean to us. But you, on the other hand, are, or should be, more staunchly built, more fully equipped, more richly freighted, and we wish you Godspeed on your voyage, with the hope that you will come into a fuller prosperity, a greater usefulness and a more ample reward than that upon which we congratulate ourselves.

We appeal to you to cultivate a broad catholic spirit in your intercourse with each other, a fraternity with men of other professions, a deep sympathy with all humanity, and a profound reverence for universal truth.

"Quit you like men, be strong."

ABSTRACTA.

The Dangers of Experimental Hypnotism.—To seek novelties, especially of a startling nature, is a peculiarity inherent to the human race; and if they are tinctured with the mysterious and occult, the interest is enhanced. This is particularly applicable to hypnotic suggestion, which as an experimental fad is running riot among all classes and conditions of life, *séances* being held not alone in public halls and in hospitals, but also in private boudoirs and drawing-rooms.

So far as therapeusis is concerned, the benefits claimed have not been verified, but, on the contrary, hypnotism has proved a two-edged sword, the sharpest concealed and looking backward. It is a form of psychism, the alphabet of which has not been mastered; a contact of mind with mind, and mind with matter, prone in inexpert hands to subserve evil rather than good—and even with the expert is often fallible, and frequently pernicious. Some years since Dr. Taylor, author of "Medical Jurisprudence," seized with the spirit of prophecy, volunteered the surmise that the day is not far distant when "mesmerism"—as hypnotism was then termed—would demand a prominent place in medical jurisprudence; and this prediction is being rapidly verified. Already we find it made a plea by which to escape the punishment of crimes, from petty larceny to rape; it is the excuse of the mother who destroys her illegitimate offspring, and of the depraved who seek to avoid the penalties of a guilty passion.

Again, those most amenable to hypnotic influence are of the hysterical or weak-minded class, either inherent or acquired, and

though, perhaps, afforded temporary aid thereby, the morbid conditions existing are ultimately exaggerated and enhanced. The chief physiological phenomenon induced is *cerebral anæmia;* and, paradoxical as it may seem, the larger number of cases are practically mitigated by exaggerating the very pathological condition that demands relief. Little wonder, then, that the unfortunates are too frequently rendered unfit for any thing but the hospital and insane retreat, for it is notorious that suggestion has rapidly developed, and firmly established, mental maladies that were primarily but latent, or in abeyance.

Great harm has been done, also, by permitting the lay press to revamp and garble the experiments of Kraft-Ebing, Charcot, and Bernheim, for sensational purposes. Such has tended to foster the calling of "Clairvoyants," "Faith Curers," "Christian Scientists," "Vitapathic" frauds, and kindred charlatans. Worse, it has provoked private experiments and *séances* that frequently have led to most unfortunate results. Even school children have been bitten with the craze, and a Miss of thirteen years, by discovery of her power in this direction, succeeded in relegating three of her school-mates to invalid couches, and establishing in one an inveterate chorea.

Unfortunately, in this country hypnotism is regarded as an experimental science, beyond the reach of the statutes. That it is not so considered abroad, is evidenced by the fact that the Minister of War of France, recognizing its influence in the production of hysteria and kindred alien affections, has forbidden its practice by army surgeons. Also, at a supper party in Paris, recently, one of the company hypnotized a girl, who could not again be roused until taken to the residence of a physician, and even then recovered consciousness only after prolonged efforts; the whole party was taken into custody by the police and not released until the next day. In Nuremberg a like accident occurred, the principal in this instance being a commercial traveler, the victim a waitress in a restaurant. Eight days imprisonment and hard labor, supplemented by a heavy fine, will probably henceforth moderate the ambition of the former to enact the *rôle* of a hypnotizer.

As already intimated, even when practiced by competent medical men—and very few are competent—for remedial purposes, the results have not justified the experiment, save, perhaps, in a few isolated cases; ulterior consequences and unpleasant accidents have occurred again and again, and it should be distinctly understood by both the medical profession and the public at large that hypnotism is ever a source of danger, to be employed only as a *dernier ressort*, and that it has, not infrequently, permanently impaired the moral and emotional control of patients. The physician, before employing or recommending it, is bound to weigh the question most carefully—as carefully as he would an operation within the calvarium for the relief of an obscure mental trouble.

As regards experimental hypnotism as practiced by the laity, it is time its dangers were fully understood and a complete halt therein called, enforced, if need be, by stringent statutory enactment. To endanger health, or to rob one of his or her mental status, is certainly as criminal as the picking of a pocket or an assault upon the person.—*Medical Age.*

"Milk too Dry."—It is a mistake to suppose that because milk is a liquid food it is at the same time a drink which is capable of satisfying the thirst of infants. Although milk appeases hunger, it makes thirst more intense after it has remained some time in the stomach and digestion of it has begun. It is thirst which causes healthy breast-nourished infants to cry for long periods of time, in many instances. There are many cases of indigestion due to weakness or insufficiency of the child's gastric juice which would be greatly benefited, or even cured, if the child were allowed an occasional drink of water.—*Pacific Health Journal.*

Hot water is highly useful in the digestive disorders of children. A child will live for several days with nothing else to eat, and be in much better condition than with a demoralized digestive tract. On hot water it will live comfortably, and scarcely seem to miss the mother's milk. With a colicky baby the hot water frequently acts as an anodyne, putting it to sleep. If it seems distressed after nursing, the hot water relieves the pain even if it be caused by an over-filled stomach.—*Dr. Grace D. Granger, in Texas Courier Record.*

For "Black and Blue."—To prevent the blood from settling under a bruise, there is nothing to compare with the tincture or a strong infusion of capsicum annuum mixed with an equal bulk of mucilage of gum arabic, and with the addition of a few drops of glycerin. This should be painted all over the surface with a camel's-hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, this treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic stiff neck.—*St. Louis Polyclinic.*

Tuberculous Cigars.—It is stated that a German physician, on examination of a number of cigar tips, found that many of them were infected with tubercle bacilli. The makers were tuberculous, and, in the manufacture of the cigar, moistened the tips with their saliva.—*Health.*

The phonograph has been timed to run account in recording the sounds given by the heart and lungs under auscultation. It is thought that this should be of invaluable service in consultation, as a true account of a patient's condition can be sent to a specialist at a distance.—*Trained Nurse.*

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BOOK NOTICES.

THE INTERNATIONAL MEDICAL ANNUAL and Practitioners' Index for 1890. Edited by P. W. Williams, M.D., Secretary of Staff, assisted by a corps of thirty-six collaborators, European and American, specialists in their several departments. 600 octavo pages, illustrated. $2.75. New York: E. B. Treat, Publisher, 5 Cooper Union.

The eighth yearly issue of this handy reference one-volume manual is at hand. In its Alphapetical Index of New Remedies and its Dictionary of New Treatment it richly deserves and perpetuates the well-earned reputation of its predecessers. In this volume its corps of department editors has been largely increased, and important papers upon Thermo-Therapeutics, Electro-Therapeutics, Sanitary Science in city and country, and the Medical Examiner in Life Insurance are features of special interest. It is truly a helpful volume, a *résumé* of the year's progress in medicine, keeping the busy practitioner abreast of the times with reference to the medical literature of the world. While there is a generous increase in size and material, the price remains the same, $2.75.

MEDICAL DICTIONARY. By George M. Gould, AB, M.D. Philadelphia: P. Blakiston, Son & Co.

A compact one-volume book, containing several thousand new words and definitions, collected from recent medical literature, while the total number of words is beyond that in any simi ar book. It includes also elaborate and useful tables of the bacilli, leucomaïnes,

ptomaïnes, micrococci, etc.; of the arteries, nerves, etc., and of the mineral springs of the United States, together with other collateral information.

ESSENTIALS OF DISEASES OF THE SKIN. By Henry W. Stelwagon, M.D. Philadelphia: W. B. Saunders, Publisher.

This is a small duodecimo book of about two hundred and fifty pages. The plan followed by its author is to treat each subject by a series of questions and answers The questions raise the salient points regarding the disease, and these are answered. In the hands of a competent and conscientious writer there is room for a great deal of valuable information to be thus given, and in a way that will make the treatment of the topics clear and concise. Dr. Stelwagon is one of the most trustworthy writers, and has done an effective work in this little volume, which, while the last of a large number of little hand-books on skin diseases produced within recent time, yet has some advantages that make it superior to them all. F. C. C.

ESSENTIALS OF EXAMINATION OF URINE. By Lawrence Wolff, M.D., Physician to the German Hospital, and Demonstrator of Chemistry in Jefferson Medical College. Philadelphia: W. B. Saunders, Publisher.

This is a duodecimo of a series of hand-books for students, proceeding by questions and answers to detail a subject For ready use it is admirable, and contains recent and approved tests. It is a satisfactory book for the practical use of the practioner. F. C. C.

MEDICAL REGISTER DIRECTORY AND INTELLIGENCER.

Dr. Wm B. Atkinson, editor, requests each member of the medical profession in New York, Ohio, Illinois, Indiana and Iowa to forward, as soon as possible, the following points: Name in full, school of graduation and year, post-office address and state.

A copy of the book will be forwarded without charge to each physician whose name appears in its pages. The book will contain much valuable information.

Send the above data, immediately, to George Kiel, 1214 Filbert street, Philadelphia, Pa.

THE ANNALS OF GYNÆCOLOGY, formerly published in Boston, is enlarged and improved and a Department of Pædiatry added, under the editorship of Dr. Louis Starr, of Philadelphia, and is now

published in Philadelphia, under the name, *Annals of Gynæcology and Pædiatry.*

Dr. E. W. Cushing, of Boston, who has recently become Surgeon of the Woman's Charity Club Hospital for Women, continues to edit the Department of Gynæcology.

By recent action of the Obstetrical Society of Philadelphia, this journal has been made the official medium for the publication of the important transactions of the society.

It is published monthly, will contain never less than sixty-four pages of reading matter, at least sixteen of which will be devoted to Pædiatry. The subscription price remains at the very low figure of $2.00 a year; $2 50 to foreign countries. University of Pennsylvania Press, A. L. Hummell, M.D., General Manager, Philadelphia.

MEDICAL NEWS.

Tenth International Medical Congress.

The Committee of Organization of the Tenth International Medical Congress, R. Virchow, President; E. von Bergmann, E. Leyden, W. Waldeyer, Vice-Presidents; O. Lassar, Secretary-General, have appointed the undersigned members of an American Committee for the purpose of enlisting the sympathy and co-operation of the American profession.

We are assured that the medical men of our country will receive a hearty welcome in Berlin. The Congress promises to prove of inestimable value in its educational results, and in securing the ties of international professional brotherhood. It is most important that the American profession should participate both in its labors and in its fruits.

Delegates of American medical societies and institutions, and individual members of the profession, will be admitted on equal terms. The undersigned, therefore, beg to express their hope that a large number of the distinguished men of our country will appreciate both the honor conferred by this cordial invitation and the opportunity afforded us to fitly represent American medicine.

The Congress will be held at Berlin, from the fourth to the ninth of August.

The arrangements in regard to a few general meetings and the main scientific work, which is delegated to the sections, are the same as in former sessions. A medico-scientific exhibition, the programme of which has been published a few weeks ago, is to form an ingredient part. It is to the latter that the Berlin Committee is very anxious that both the scientific and the secular press should be requested to give the greatest possible publicity.

The office of the Secretary-General is Karlstrasse 19, N. W., Berlin, Germany.

S. C. Busey, Washington, D. C.
Wm. H. Draper, New York.
R. H. Fitz, Boston, Mass.
H. Hun, Albany, N. Y.
A. Jacobi, New York.
Wm. T. Lusk, New York.
Wm. Osler, Boston, Mass.
Wm. Pepper, Philadelphia, Pa.
J. Peyre Porcher, Charleston, S.C.
J. Stewart, Montreal, Can.

[Programmes and other communications will be distributed two months before the Congress to those who have paid the membership fee of five dollars.]

Revision of U. S. Pharmacopœia.

The convention for the revision of the U. S Pharmacopœia will be held in Washington, D. C., May 7, at noon. Committee of Arrangements: Dr. Samuel C. Busey, Dr. C. H. A. Kleinschmidt, Dr. Robert T. Edes, of Washington; Mr. P. W. Bedford, of New York, and a committee of the National College of Pharmacy, consisting of W. S. Thompson, J. A. Milburn, and S. E. Waggaman, M.D.

The delegates from the Albany Medical College are Maurice Perkins, M.D., J. M. Bigelow, M.D., W. P. Mason, M.D.; alternates, H. E. Webster, M.D., F. C Curtis, M.D., W. G. Tucker, M D.

Delegates from the Albany College of Pharmacy are A. B. Huested, M.D., Ph.G., G. Michaelis, Ph.G; alternates, L. Sautter, Ph.G., C. H. Gaus, Ph.G.

The forty-first annual meeting of the American Medical Association will be held at Nashville, Tenn., May 20–23, 1890.

Reed & Carnrick, New York, have sent us a large package of Cod Liver Oil and Milk, and Cod Liver Oil and Milk with Hypophosphites. This preparation is now so improved that it is believed to keep perfectly for any required time.

PERSONAL.

—Dr. Henry V. Hull ('74), son of the late William B. Hull, died Thursday morning, March 27, at Coeymans, Albany county. He had been suffering from acute lung difficulty for some time, but his death was sudden and unexpected. Although but 38 years of age, he was already a physician of established reputation. He began the practice of Medicine in Coeymans, and was an active member of the Medical Society of the County of Albany, but afterward transferred his activities to Schenectady, where he remained until a few months ago, when he gave up his practice on account of failing health, and returned to his home. During his residence in Schenectady he was a frequent participant in the medical meetings in Albany. He was much respected, and his death, following only one week after his father's funeral, has caused a feeling of deep solemnity. His funeral was from the Reformed Church. He was buried under the auspices of Friendship Lodge, F. and A. M.

—Dr. R. H. Cameron ('70), of Johnstown, N. Y., a prominent physician and oculist, was killed April 26, while training a colt in the driving park. He was just coming around the turn in the homestretch when his colored man, who was timing him, was horrified to see the doctor hanging in front of the sulky, so that the colt's heels hit his head at every jump. He was taken home, but died in a few minutes. Dr. Cameron had for twenty years practiced his profession at Johnstown, where he was a prominent and respected resident. He was a member of the orders of Masons and Knights of Pythias and was a director of the Opera House Company. Dr. Cameron was 45 years old. He is survived by a wife and two children.

—Dr. Myron R. C. Peck died Saturday, March 29, at Hartford, Conn., from brain trouble. He was born in Albany, and lived here most of his life-time. Dr. Peck graduated from Rutgers College and from the College of Physicians and Surgeons, New York. Then he went abroad, spending four years, mostly in Vienna and Heidelberg, where he completed his medical studies. Returning, he located in Albany, remaining here about two years, 1880 and 1881, at 135 Washington avenue. Then he moved to New York, where he continued practice, and finally located in Hartford. He was a brother of Samuel S Peck and a brother-in-law of Dr. William H. Bailey, of

Albany. The funeral was held in Albany, at Dr. Bailey's residence, Monday afternoon.

—Dr. G. L. Carhart ('48), Marion, Iowa, in continuing his subscription, writes: "I must have the ANNALS; it is like hearing from home every month."

—On Wednesday, April 9, 1890, were married at Bacon Hill, N. Y., Miss Fanny A. Rugg and A. Marshall Burt, M.D.

Dr. Burt is one of the A. M. C. men, class of '89, and is practicing in Fort Plain, N. Y. He reports business to be in a flourishing condition. Now that the doctor is so well equipped for life, we trust he will meet with the best of success, which he surely deserves.

—Dr. Willis Goss Macdonald ('87), of Albany, sailed for Europe, Wednesday, April 23, for a protracted course of study.

—Dr. Wilbur Fisk Lamont ('89), Catskill, N. Y., was married, April 16, 1890, to Miss Grace Johnson, daughter of Mr. Sherwood R. Johnson, of Catskill.

—Dr. Merlin J. Zeh ('89), of West Troy, was married to Miss Birdie Cullen, Wednesday, March 26.

—Dr. G. T. Moston ('90), West Albany, N. Y., was married to Miss Ida May Turner, at the home of the bride's parents in Johnsburgh, Wednesday, April 23.

—Dr. George Emory Lochner ('89), whose term of service as resident physician and surgeon in the Albany Hospital expired April 1st, was the happy recipient at that time of numerous gifts from the nurses of the hospital, including an elaborate inkstand, an elegant pocket surgical case, a stethoscope and other instruments, and from Mrs. S. B. Cavert, the matron of the hospital, a new faradic battery.

Dr. Lochner's office, after May 1st, will be at No. 1 South Hawk street, Albany.

—At the Albany Hospital, Dr. J. E. Brennan ('89) is resident physician and surgeon, Dr. W. G. Murphy ('90) is senior assistant, and Dr. W. H. Happell ('90) is junior assistant.

—Dr. J. A. Hagar ('90), Slingerlands, Albany county, N. Y.

—Dr. J. W. Kinskern ('90), Springfield, Mass.

—Dr. F. M. Clement ('90), 97 Clinton avenue, Albany.

—Dr. John Houghton ('90), West Albany.

—Dr. Wm. Belfield, 612 Opera House Building, Chicago, Ill., U. S. A., respectfully solicits information concerning unpublished cases of operations upon the prostate, especially for the relief of the so-called hypertrophy of the organ.

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NERVOUS COUGH.*

BY DAVID FLEISCHMAN, M.D., ALBANY, N. Y.
(*A. M. C.*, '81.)

Not only is there great diversity of opinion among authorities as to the causes and symptoms of nervous cough, but there is absolutely no mention of the affection in several text-books.

Stoerk† says: "Cough without material cause, with an entirely normal condition of the air passages, is frequently observed in hysteria. But laryngoscopic examination has shown that this phenomenon of imperfect action has its origin merely in the lack of will-power, and it can often be permanently removed by the local application of the faradic current or by other powerful stimulation even of brief duration.

"There occurs in young girls, and sometimes also in yonng boys, a short, hard cough, without any demonstrable disease of the mucous membrane of the respiratory tract. Choreic movements of the whole body are exceptionally observed in these individuals. In most cases it is merely a continuous cough, a sudden cry, or a sound like the yelping of a dog, or a long and loud hawking, on account of which it has been termed chorea laryngis.

"The frequency of the cough in this affection, which usually continues for several months, but in occasional instances for years, is very variable. It is a characteristic of the affection that the cough never occurs at night, and that if the attention of the patient is diverted or his mind occupied it can be stayed."

* Vice-President's Address at Semi-Annual Meeting of the Medical Society of the County of Albany, May 13, 1890.

† Klinik der Krankheiten des Kehlkopfs, der Nase und des Rabhens, von Dr. Carl Stoerk, Stuttgart, 1880.

Prosser James,* speaking of spasmodic cough, simply mentions that "hysterical and nervous laryngeal coughs are recognized by many, and are very intractable."

Cohen† says: "A peculiar spasmodic cough occurs independently of any appreciable lesion. It is most frequent in females, and is usually attributable to hysteria. Sometimes it is associated with some degree of dementia. Sometimes it is accompanied with choreic movements of head and trunk. * * * There is usually some characteristic tone to the cough, such as that of the cry of one of the lower animals, the yelping as of a little cur being the sound most frequently met with." He refers, among others, to a case of his, where "the sound of the cough might be represented by the syllables 'ha, hich,' the latter syllable having the Greek or Teutonic sound, and being given at a pitch a fourth higher than that of the first one." The cough of a second patient, who, like the former, was the daughter of a clergyman, resembled that of a little poodle; and, further, the author instances the fact of the pupils of a boarding school in Philadelphia being dismissed to their homes on account of the spread among them of an hysterical, spasmodic, barking cough.

Mackenzie:‡ "The term 'nervous laryngeal cough' is used to describe a shrill, often, indeed, extremely metallic cough, which, in the entire absence of any laryngeal or pulmonary affection, occurs in paroxysms, and lasts for many hours each day, only ceasing when the patient sleeps at night." He ascribes it to some peculiar condition of the nervous system or to reflex irritation in the intestinal tract. "In very rare instances the peculiar sound of the cough is absent, its almost uninterrupted continuance, on the one hand, and the healthy condition of the larynx and the absence of any inflammatory bronchial affection, on the other, alone showing the nervous character of the phenomenon." It occurs in young girls or boys, or even in children, and it may continue weeks, months, or, in one case, years, when tracheotomy was necessitated by severe spasm of the glottis.

Lennox Browne§ believes that there is always an objective reason for nervous laryngeal cough. He regards it as due to the irritation of enlarged tonsils, to lingual and pharyngeal varix, to unwholesome atmospheric changes, when a localized congestion of some part of the pharynx or larynx

* Sore Throat, its Nature, Varieties and Treatment. 1887.

† Diseases of the Throat and Nasal Passages. 1880.

‡ Diseases of the Throat and Nose, Vol. I., Mackenzie.

§ Browne on Diseases of the Throat. 1887.

can be determined. "It may also be a reflex manifestation of ovarian irritation in young girls; and in these cases there is almost always congestion or enlargement of the thyroid gland. The condition is aggravated at the menstrual epoch, and relieved on its termination. Dysmenorrhœa is usually present."

Johnson* says: "Besides this ataxic condition (chorea of the larynx), we have hysterical disturbances of the motor functions, which are of various kinds, according to the muscles involved." The cough is at times an effort to clear the throat, producing various harsh noises or an almost constant cough, except during sleep. A case of his was entirely and immediately relieved from cough and asthma when a lacerated cervix uteri was repaired.

Gottstein† divides hyperkinetic disturbances of mobility into (1) spasm of the muscles which close the glottis (laryngospasm); (2) paroxysmal spasm of the glottis combined with the contraction of the expiratory muscles (nervous cough). Gottstein's article is so comprehensive and, I believe, correct, and, furthermore, my own cases fall so naturally into his classification, that I quote him at length:

"We understand by the designation nervous cough, a cough caused by no demonstrable pathological change in the respiratory tract, but due only to increased irritability or other affection of the central nervous system. We consider as nervous a cough produced by stimulation of such sensory fibres as do not, when irritated, produce this symptom under physiological conditions, and, further, that which, though not produced by reflex action, is due to an affection of the central nervous system. * * *

"Eulenburg considers it to be a respiratory inhibitory neurosis, and ascribes it to irritation of the centripetal fibres of the vagus, thus excluding cases due to irritation reflected from other nerves, as also those due to central causes.

"Tobold separates nervous from hysterical cough, with which, according to his view it has nothing in common, and describes it as a cough occurring in paroxysms of unusual severity with intervals of complete freedom.

"Schroetter describes that cough which occurs against the wish of the patient, and which always attracts attention from its peculiar sound, as 'spasmodic.' The author classes under this term all forms of cough of purely neurotic origin, in whatever way they occur. * * *

"Among the causes of nervous cough, as of laryngeal

† H. A. Johnson, Pepper's System of Practical Medicine, Vol. III., p. 77.

‡ Diseases of the Larynx, by Dr. J. Gottstein. Translated by P. McBride.

neurosis generally, hysteria takes the first place; then follow all diseases which are associated with increased irritability of the sensory or central nervous system, *e. g.*, diseases of the sexual apparatus in women, altered quality of the blood, as in chlorosis and advanced anæmia, and also 'general nervousness.' In these cases cough may occur in one of two ways—(1) reflexly, by irritation of those sensory fibres which, when stimulated, do not normally produce cough; (2) without any external cause when it is due to purely central irritation. * * * Females are more liable to be attacked than males. The affection is peculiarly liable to attack girls about the age of puberty, but also boys up to their sixteenth year. Temperature, season, etc., have no influence either in the development or the occurrence of the disease."

With reference to symptoms, he distinguishes two varieties—(1) the paroxysmal, (2) the continuous, short and rythmic. The first is severe, of varying duration, ceasing spontaneously, produced sometimes without apparent cause, and at other times caused by excitement, fright or stimulation of a sensory nerve. It ceases during sleep, and is generally, but not always, without expectoration. The rythmic is regular, continuous and of varying acoustic peculiarities, ceasing during sleep. The patient can only interrupt it so as to allow of eating and speaking, which in the other variety is impossible during a paroxysm, and the same applies to laryngoscopic examination. The interval between coughs may be partially controlled by an effort of will, according to Schroetter, or such effort may aggravate it. "In conjunction with this rythmic cough there may be also observed twitching of other muscles, especially those of the face. In a case observed by us, cough and facial twitching alternate so that the cough lasted for weeks, and then twitching set in, and *vice versa*."*

The symptoms detailed, and the fact that there is no pathological change in the respiratory tract, make a diagnosis easy. The duration is indefinite and the condition may persist for years and with little or no detriment to the general health.

Treatment consists in attention to the systemic ailments,

*Gottstein rejects the term "chorea laryngis" entirely, even in cases where the rythmic cough is accompanied by or alternates with choreic movements of the face or extremities, or even with general chorea. "We cannot consider the cough as due to choreic twitching, because the characteristic feature of chorea is found in anomalous movements as a result of attempted voluntary coördination, and nervous cough disappears at the moment of phonation."

Chorea laryngis can only be diagnosed by laryngoscopic examination. Two cases have been reported by Knight where the choreic movements affected the larynx only and where cough was absent. "Chorea laryngis is characterized only by a peculiar choreic, incoherent action or incoördination, or, as Watson would term it, an 'insanity' of the laryngeal muscles. It is not the cause or direction from which the irritation comes that is sigificant, but it is the peculiar choreic manifestations of the larynx that are diagnostic." (Roe.)

if any be present, in general tonic treatment, in the application of electricity, in change of climate and surroundings, and the elimination of the exciting cause where that can be determined.

My cases are as follows:

CASE I.—Mrs. ———, aged 30, was confined in May, 1889, having had one child previously whom she did not nurse. She had always been in good health, though suffering slightly from general nervousness. During the previous pregnancy she had a severe attack of hyperæsthetic rhinitis, beginning in July, 1886, but the removal of the hypertrophied tissue of turbinateds effected a complete cure, for there has been no recurrence and only a very few slight head-colds, whereas previously severe and obstinate attacks of the latter had been frequent. During the first few weeks after confinement the nursing of the child caused great general uneasiness and nervousness. The condition of the nipples and breasts was normal. About the end of the first month the act of nursing was attended with severe attacks of spasmodic cough, which were absent in the intervals of nursing and during sleep. They became finally so severe that vomiting occurred during the attacks as often as five or six times a day, but the emesis never put an end to the attack. There was no laryngeal or pharyngeal congestion at this time, but at the end of the second month there would be slight congestion of the larynx and slight hoarseness after the attacks, but these did not persist.

The patient's general health remained good, her weight did not decrease, appetite was natural, and removal to the Catskills caused general improvement, but did not in any way modify the attacks of coughing. In the fourth month the baby was attacked by a mild bronchitis, which worried the mother, and from that time, more than previously, not only would cough or restlessness or any trivial ailment of the baby induce the paroxysm, but also apprehension (unduly present) as to the child's welfare would suffice. At this time Dr. Vander Veer saw the patient with me, and he, too, could detect no pulmonary affection. The pharynx was markedly congested, but this condition was not present until the fourth month after the onset of the difficulty. Nursing was persisted in for five months. The uterus was normal. The weaning of the child was of immediate benefit, and the number, though not the duration, of the attacks was markedly diminished. The patient could be away from home an entire day and could spend an evening at the theatre without a single cough, and yet the slightest indigestion of the

baby, or a cough, or her apprehension as to their recurrence, would cause a paroxysm.

Narcotics had no beneficial effect, nor tonics, iron, arsenic, strychnine or the hypophosphites, nor moral influence. About eleven weeks ago the inhalation of a mixture of oxygen (60 per cent.) and nitrogen monoxide (40 per cent.) was begun and was followed by immediate relief, and, indeed, has been frequently effective in stopping a paroxysm at its inception. Ten gallons of the mixture were inhaled morning and evening, and occasionally a small quantity during the day, and it is some weeks since she has had a genuine paroxysm. She coughs now rarely, and never in paroxysms, and considers herself well.

CASE II.—Miss J., aged 29. She had always been in good health, although menstruation had always been attended with some pain previous to the onset of her cough four years ago this April. At that time, during a menstrual period attended with an unusual amount of pain, she began to have the peculiar cough, but only in the morning and evening. It became more frequent, until in August of that year it continued all day, and has so continued with little variation as to frequency, but with considerable change in quality. I first saw her in September, 1886, when she was referred to me by her physician, Dr. Porter. Then the paroxysm consisted of a series of explosive coughs, not loud, with intermissions varying from thirty seconds, when she was embarrassed by observation or otherwise, to a minute or a minute and a half, and which was frequently mistaken by people in the waiting-room for the noise of a puppy-dog. She was so sensitive to the observation caused by her condition that she was reluctant to go where she might meet people. I did not see her from January, 1888, until six weeks ago. The cough is just as frequent, giving her no respite except when she sleeps. If she awakes during the night, she coughs until she falls asleep. The cough now consists of the two syllables yeh-ehp, the second being prolonged, preceded and followed by usually two, but sometimes three or four, apparent attempts to clear the throat, thus: yeh-ehp, hu-hu. There is a mild catarrh of pharynx and larynx, but no lingual inflammation. Her voice in conversation is normal. The laryngoscopic examination adds nothing of value. Preceding the cough the vocal bands are violently approximated three or four times when the first sound of the cough is heard. Then further examination is impossible. She can control the cough during eating for about ten minutes, after which the par-

oxysms are much more severe. Headache has been frequent, but not severe, since the beginning of the attacks and the latter are aggravated during menstruation, at which time pain is sufficient to confine her to bed for a week. There is considerable tenderness on pressure over the ovaries.

All treatment, general and local, including the application of the galvanic and faradic currents, has been unavailing to modify her condition, and the slight improvement noticed at times was not caused by treatment. Her general health is very good, apart from the menstrual difficulty noted.

CASE III.—Miss ———, aged 17, was referred to me by Dr. McKown in April, 1889. She had been suffering from her peculiar cough for some months, I believe. There was no family neurotic history, but she herself was quite nervous. Her school duties, though not onerous, were yet a cause of worry. Her appetite was poor and sleep was disturbed. Her mother told me that she would frequently arise at night from bed to study, and anxiety about her studies was almost ever present with her. The cough was not severe, but persisted all day, to cease during sleep. There was hypertrophy of inferior turbinateds and considerable hypertrophy of the glandular tissue at the base of the tongue. A possible cause of irritation was sought in these, but the removal of the abnormal condition did not appear to have a direct beneficial influence. The larynx was normal except a slight congestion of the cords, which yielded readily to treatment. General treatment was mainly by tonics, although sedative remedies were also employed. She improved decidedly during June, and all through the summer, which was passed at Lake George, she was almost entirely free from the cough. In September she again went to school, and the cough returned. She left school and went to Colorado about four months ago. Her general condition has improved very much. She has gained fifteen pounds in weight, and is free from the cough, except to a slight extent in damp weather.

The acoustic qualities of the cough were peculiar. It can best be represented by the syllables ha-ho, the first considerably higher in pitch than the second. There was a single enunciation of these syllables to each cough. The intervals between coughs was about two minutes, which interval was greatly diminished when embarrassed by observation or otherwise nervous. This cough, too, was frequently mistaken for the cry of a dog.

CASE IV.—Miss ———, Schenectady, aged 30, I have seen occasionally since 1885. She had lost her voice in 1884.

She went to Florida in that year, and suddenly regained her voice, to as suddenly lose it on her return. There was hysterical aphonia with whispering voice. Cough was frequent, severe and spasmodic, each paroxysm consisting of repeated short, harsh and rough coughs. The character and acoustic quality of the cough were always the same, but the duration and frequeney varied greatly. There was no marked nasal or pharyngeal disease, yet the severest paroxysm I have heard would invariably follow reflecting a bright light into either nostril.* She has had no menstrual trouble, but has had severe headache, sometimes continuous for many days. She complains, too, of flying chest and throat pains, and has had a number of attacks of articular rheumatism of the ankles. I have seen her in one hysterical "spell" followed by unconsciousness, the exciting cause of which I believe to have been the feeling of suffocation caused by the application of a two per cent. solution of cocaine to the larynx previous to introducing the laryngeal electrode. Once an attack of coughing, continuing for an unusual time, ended in unconsciousness. I had not seen her for some months until last week. She has had in the meantime an attack of congestion of the lungs, and her general condition is much changed for the worse. She is now absolutely voiceless. Her cough is audible, though not as loud as formerly, but the paroxysmal character is no longer present.

CASE V.—Mrs. ———, aged 40, was referred to me in May, 1883, by Dr. Perry, who kindly furnishes me with the following notes:

"Mrs. ———, aged 40, native of England, married twenty years, mother of three children and having had four abortions, came under my observation during 1877, she having at this time a great many nervous phenomena, such as intermittent neuralgia, occurring in various parts of the body, and especially in the region of the uterus, with some prolapsus. She has also had at different times slight hysterical seizures. I do not remember any thing of special note until the spring of '82, when an attack of aphonia made its appearance and lasted six months, recovery being complete. In November, '84, a second attack of aphonia occurred, which was complete, lasting three years, and finally ending with perfect restoration of voice, so far as I know. In September, '85, while yet in the aphonic state paraplegia made

* Ebstein reports the case of an hysterical young lady in whom cough was produced not only by stimulation of sensory nerves, but also of those of special sense. "The slightest touch, every noise, such as the sound of knives and forks in eating, the footsteps of the father on returning from a walk, were sufficient to produce paroxysms of cough, the like of which, for duration and intensity, I have rarely heard." (Gottstein.)

its appearance, and was complete in every respect. There was abolition of superficial and deep reflexes, a very great amount of rectal and vesical disturbance, and amenorrhœa for several months; this latter was quite a new departure, as the menstrual function had always been perfect. This condition persisted for about one year, terminating in complete recovery. Her health for the past three years has been excellent."

When I saw her she was suffering from hysterical aphonia. Her cough was very peculiar. It consisted of a paroxysm of short coughs, whose duration varied, rarely continuing for a minute. The tone was soft and suppressed, becoming less loud from inception to finish, being at last scarcely audible. She had many paroxysms daily, ending occasionally, she said, in unconsciousness. She had one such paroxysm in my office. It differed apparently not at all from her ordinary cough, except that it continued for an unusual time —I should judge for two or three minutes, gradually becoming fainter, until the patient became unconscious for fully five minutes. Her countenance was flushed, pulse slower than normal, and respiration hurried and noisy. There were no convulsive movements. The unconsciousness following cough in this case and in case IV. seems to me to be simply an hysterical phenomenon.

ABSTRACTA.

The Metric System and the Pharmacopœia.—A committee of the American Association for the Advancement of Science has issued an address to the professions of medicine and pharmacy and to the medical and pharmaceutical colleges of the United States and Canada, urging the adoption of the metric system of weights and measures in the forthcoming edition of the United States Pharmacopœia. It may be expedient for the Pharmacopœial Committee to comply with this suggestion, but we warn them that, if they wish to escape general complaint, they must couple every metric expression with its equivalent according to the system now in use; no mere table of equivalents will be satisfactory.—*New York Medical Journal.*

Emulsion of cod liver oil is made by taking equal parts of lime water and the oil. Add a small quantity of wintergreen or oil of almond to flavor. It will agree in many instances with a delicate stomach that will not tolerate the pure oil.—*Kansas Med. Journal.*

Hypnotism is of such a nature that many do not believe in it at all, and others, for whom the facts are too strong to be utterly denied, require the definite exposition of a theory by which to explain them. In many ways the investigation of hypnotism is only on a par with the investigation of many other subjects. What is, for instance, electricity? We do not know, but therefore we do not deny that it exists, because it must exist; it has a force which we can see, feel, and utilize. We have not yet arrived at a point where we can say that no new laws exist, nor where we can say that our present methods of investigation are the only ones which can be employed. We cannot now-a-days afford to interpret new facts by old ideas. The law of gravity is no less true because the law of magnetic attraction has been discovered, and it must be true that with greater knowledge new methods of investigation must claim our attention as progress in knowledge advances

Like Somnambulism.—Du Prel imagines that man possesses, as it were, two intelligences, one capable of acting and receiving impressions alone through the body, and one, the real ego, capable of entering into other relations of a more ghostly or ethereal nature. He thinks that ordinary dreams occurring on going to sleep and awaking therefrom are simply phantasms, of the earth, earthy, and that a confused recollection of these phantasms is the dream all of us know so well. He thinks, however, that between these two states of semi-oblivion deep sleep occurs, in which the real ego is cut off from the five senses and the knowledge conveyed directly by them, and is free to live, as it were, a life of its own, during which its intellectual functions are active, and when it is possible for it to attain knowledge unattainable in the ordinary way. In real somnambulance what takes place intellectually is unknown to the common intelligence, but we know that it is possible for a somnambulist to see, to talk, to write, and, in fact, to possess heightened sensibilities whereby acts impossible during waking hours may be performed with certainty and ease. A person during deep hypnotic sleep acts as a natural somnambulist acts.

Abstraction of Oxygen; Catalepsy.—Preyer, of Jena, (1880) thought that sleep was due to the formation in brain and muscle of certain products termed by him *Ermüdungsstoffe* (fatigue-products), which products he believes to be easily oxidizable. "They accelerate the dissociation of the oxygen and the hæmoglobin in the capillaries of the brain and muscles; sleep then ensues, and the tissues which most depend upon the regular supply of oxygen, viz., the gray substance of the hemispheres and the muscles, are the fitst to be affected by the accumulation of *Ermüdungsstoffe.*" He goes on to state his belief in the reality of hypnotism, and explains its production as follows: "If by strong and sudden stimulation attention be forcibly concentrated on one impression, as in fright, then *catalepsy is the consequence in both*

man and in animals. If the will direct consciousness to a certain point without any excitement, it will in many cases lose its power, and hypnotism is the consequence—abulia. Possibly this occurs because the oxygen of the arterial blood in the brain has so quickly been used up that there is not enough left to keep the gray matter of the hemispheres awake. The nervous cells are separated from each other by inactive regions, and, as in natural sleep, only certain centres remain active; for example, the respiratory and other coördinating centres.

Leucomaïnes, Diurnal and Nocturnal.—Lauder Brunton (Croonian Lectures): The cells of living organisms (also) break down albuminous matter in the course of the functional activity, and alkaloids are formed in the healthy body, to which the name of leucomaïnes has been given. An interesting observation has been made by Bouchard, to the effect that the alkaloids formed during sleep have a stimulating action, so that when they accumulate to a certain extent they tend to excite the nervous system and make the person awake. Those, on the other hand, which are formed during the waking hours have a depressant action, and tend to bring about a condition of sleep. There is thus a sort of self-regulation in the processes of life by which waking and sleeping are alternately ensured.

In healthy sleep the person becomes unconscious of the external world; voluntary action ceases, and even the automatic centres for circulation and respiration act less energetically, so that the breathing becomes slow, the pulse quiet, and the vessels tend to dilate. This condition of the vessels has been regarded by some as a cause of sleep rather than its consequence, for the two principles to explain sleep are—first, that it depends upon anæmia of the brain, and secondly that it is due to an exhausted or inactive condition of the brain cells. In all probability the truth is that it depends upon the condition of the brain-cells, but this is so much influenced by the circulation that frequently the condition of sleeping or waking will depend entirely upon the cerebral circulation. We shall understand this more easily by referring again to Ehrlich's experiments upon oxidation and reduction in the tissues. You will remember that the gray substance of the brain is possessed of a great power of reduction, as shown by the readiness with which it reduces aniline colors after death, but during life the necessity for oxygen is so great that it retains within it a sufficient quantity of stored-up oxygen to prevent such reduction taking place under ordinary circumstances; but if its functional activity be augmented by stimulation, its store of oxygen is used up, and thus it becomes ready at once to reduce. Its very activity, however, gives rise to the formation of acid products which lessen its reducing power, so that the mere supply of fresh oxygen would not be sufficient to restore it to its previous condition unless the acid were neutralized. Arterial blood supplies both these requirements, neutralizing the acid and giving off

oxygen to the brain cells. Thus in some conditions of the brain simple increase in the supply of arterial blood will restore functional activity and cause wakefulness, while diminished supply will produce sleep. Food induces sleep by dilatation of abdominal vessels. We cannot see the intestinal vessel, but we know that the abdominal walls are thin in front, and it is almost certain that external cold will act through the abdominal walls on the intestinal vessels, and cause them to contract. Such contraction will also drive the blood to the brain, and tend to prevent sleep, but warmth to the abdomen will tend to relax them, and induce sleep. This is probably the reason why dogs before going to sleep curl themselves up, so that their abdomen is kept warm by their limbs; and men do the same thing when exposed to external cold. In cases where blood tension is high, as in chronic Bright's disease, we often find troublesome insomnia; whereas in cases of debility with low tension we often find troublesome drowsiness. One condition of the circulation is therefore a most important factor in the production of sleep, but it will, by itself, no more explain completely the insensibility of sleep than it will that of anæsthesia.

Voit found that during the waking hours more carbonic acid is given off, while during sleep the reverse is the case, and more oxygen is absorbed than carbonic acid eliminated. It is therefore evident that during waking the organism as a whole is an oxidizing agent, while during sleep it is acting as a reducing agent.

Inhibitory Ganglia.—Dr. Isaac Ott thinks that the hypnotic state can be explained by sensory irritation, produced by the bisulphate of carbon, calling ganglia at the base of the brain into activity, which ganglia have an inhibitory power.

Galvanic Superexcitability.—In 1882 Charcot, having reference to the application of the galvanic current through the brain of hypnotized hysterical patients, says there exists a state of neurotic superexcitability, not only in the muscles and nerves, but in the motor regions of the cerebral centre; thus the galvanic current acting on one side of the cranium produces sudden muscular starts in the face and limbs of the opposite side, while the same current does not give rise to any contraction when the patient is awake.

It may be presumed that during the hypnotic lethargy there is a special excitability of certain regions of the brain.

Paralysis of Inhibition.—Professor Forel, before the Gesellschaft der Aerzte in Zurich, 1888, said that the hypnotic sleep is simply an artificially produced sleep, modified in so far that the hypnotizer is able to influence the course of the subject's dreams. Any disappearance of nervous symptoms under the influence of hypnotism is to be explained exactly in the same way as the cessation of pain (for example, toothache, sciatica, etc.), which, as is well known, often follows sudden fright, etc. In other words, it

is to be attributed to cerebral inhibitory processes caused by intensive dreams. A deep-rooted morbid irritation cannot be removed by hypnotization.

Moll's ideas may be summarized as follows: In ordinary life suggestions are received and acted upon, but when hypnotized a person is more impressed, because the hypnotizer assures him of the expected result. There is a paralysis of inhibition produced. In other words, the person hypnotized is only capable of passive observation. He is unable to correct by other senses an impression placed before him by the hypnotizer—*e. g.*, a hypnotized person is told that he sees a dog; he believes he sees it because he cannot use his eyes to correct the imagination of a dog called to his consciousness by the spoken word. Active consciousness is inhibited; passive consciousness is awake. When out of several impressions one is chosen by the action of the will, and observation is fixed upon that one, that is an active observation; when out of several impressions one forces itself upon the consciousness to the obliteration of all others, then there is only passive consciousness.

Paralysis of Consciousness.—William James (1890) says: In certain persons, at least, the total possible consciousness may be split into parts which coexist and mutually ignore each other. Give an object to one of the consciousnesses, and by the mere fact of so doing you remove it from the other, or others. The anæsthesias, paralyses, etc., from which hysterics seem to suffer, appear, then, to be due to the fact that the secondary personage has enriched itself by robbing the primary one of a function which the latter ought to have retained. The curative indication is evident—get at the secondary personage by hypnotism, or in whatever other way, and make him give up the eye, the skin, the arm, or whatever the affected part may be. The normal self thereupon regains possession—sees, feels, or is able to move again.

Memory Obliterated; Memory Recalled.—The hysterical person either forgets or is unable to attend to two things at once, and so may ignore an eye or a hand, may see but not hear, may speak but not feel, etc. A patient had a fright when a child. When an attack of hysteria comes on she experiences the old fright, etc. She is hypnotized and then explains what has happened to her when a child. James therefore suggests that much information regarding the origin of obscure diseases may be arrived at during the hypnotic state. As a memory can be recalled, so a memory can be obliterated by hypnotism.

Catalepsy in Animals.—In G. J. Romane's preface to Heidenhain's *Animal Magnetism*, he concludes that Braid's theory that the cerebral circulation was in some way altered by hypnotism can scarcely be accepted as any explanation of the cause of hypnotism, for various animals having different types of circulatory apparatus can all be hypnotized. Inhibition, however, that prin-

ciple which has such a general application to the nerve centres of various species of animals, will probably prove to be the one from which the explanation must be sought. "I am inclined to consider that the hypnotic state is nothing more than an artificially produced catalepsy." And he goes on to say that probably the cerebral cortex is not the sole part whose activity is inhibited, for otherwise the phenomena which hypnotized people present would be a repetition of those observed in animals after the removal of the cerebral cortex, but the phenomena, although there are points of resemblance are not identical. He thinks, however, that a certain functional disturbance of the cerebral cortex takes place, which explains why hypnotized persons neither acquire any conscious perception as the result of sensory impressions, nor spontaneously make voluntary movements.

Loss of Inhibiting Power not due to Anæmia.—Under normal circumstances movements can be not only initiated by the cerebral cortex, but also inhibited. In the hypnotized subject both powers are absent. In any case there is absence of the inhibiting power of the will, and Heidenhain first thought it was due to cerebral anæmia, but after experimenting on the subject he now holds it to be quite proved that this cannot be, owing to the flushing of the face and the Förster's ophthalmological observations, which resulted in showing that the central retinal vessels are not contracted. He was further confirmed in his opinion by the action of nitrite of amyl, which was administered to two subjects, and yet they were hypnotized more decidedly during its action than either before or after the drug had been inhaled.

The hypothesis that the cause of the phenomena of hypnotism lies in the inhibition of the activity of the ganglion cells of the cerebral cortex is not a too adventurous one, the inhibition being brought about by the gentle prolonged stimulation of the sensory nerves of the face or of the auditory or optic nerves.

Expectant Attention and Imagination.—D. Hack Tuke is of opinion that Hunter's remarks, written nearly a century ago, really contain the gist of all that has been written since. Expectant attention, purely psychical agencies, produce certain physical results.

Exaltation and Paralysis of Function Coëxist.—Maudesley, mentioning profound reverie, considers that there is a tract or an area of activity lit up by consciousness, while all around are darkness and inactivity. And again, in regard to the well-known fact that an acute pain notably renders us insensible to a lesser pain, he thinks that the message sent to the central ganglion by it (the lesser pain) no longer awakens any notice, for there is a local suspension or inhibition of its sensory functions in consequence of the abstraction of consciousness by a neighboring predominant activity. Two nerve centres of mental function cannot be in equally conscious function at the same time. If one reaches a certain height of activity, the effect of the other will be entirely

inhibitory—it will be rendered temporarily incapable of function. In the hypnotic state the subject is less sensible to external stimuli than in natural sleep, but more so to the stimulus exerted by the operator's voice, and that if undivided attention is kept up to a single idea, the general activities of the brain are diminished —in fact sleep ensues.

Automatism.—Bernheim strenuously holds that all the phenomena of hypnotism are due to suggestion. There exists in our cerebro-spinal nervous apparatus an automatism by which we accomplish certain highly intricate acts unconsciously and involuntarily, and through which we submit to a certain extent to orders which are given us, to movements which are communicated to us, and to the sensory illusions which are suggested to us. Consciousness intervenes to modify or neutralize automatic action and to rectify or destroy false impressions insinuated into the nervous centres. Suppress consciousness, suppress voluntary cerebral activity, and we have somnambulism.

Conclusion—I think it must be confessed that at present we have insufficient grounds upon which to base any satisfactory explanation of the curiosities and mysteries of the hypnotic process. It will be necessary to define more accurately than has yet been possible what definite parts of the central nervous system are affected during hypnotism. It is also necessary to ascertain far more minutely the intimate relation between the ganglion cells in the brain itself.

A calm temperament, a firm will, and unlimited patience are necessary to any one who wishes to become a successful hypnotizer.—*Abstracts from paper by R. W. Felkin, M.D., in Edinburgh Medical Journal.*

Eczema in Elderly People.—Nothing gives more relief to the system and the eruption than the use of the well-known pill of blue mass, colocynth, and ipecac, often recommended by the late Dr. H. D Bulkley. Very commonly one of these pills is sufficient, but it should always be repeated on the second night afterward; some patients will do well to repeat the course at the end of each week or ten days. For more constant use, a pill of aloes and iron, before each meal, as required, serves the purpose excellently well; or in some persons, where there is special tendency to poor liver action, a minute dose of calomel, even one-tenth of a grain, before meals, and at bedtime if necessary, will do much toward removing the eczema.

For the imperfect kidney action no remedy is more valuable than the acetate of potassa; while not so agreeable to take as the citrate, my experience with both leads me to decidedly prefer the former. Ten to fifteen grains daily after meals, with nux vomica, in a bitter infusion, as quassia, serves a most excellent purpose, and will almost always be followed by marked improvement of the eruption.

Iron must be used rather sparingly, but after a short course of the above, will often prove most serviceable; but this will need occasionally to be suspended and the former given. The mixture of sulphate of iron, sulphate of magnesium and sulphuric acid, known as Startin's mixture, will often prove of the greatest service in eczema of elderly persons, especially in those exhibiting any tendency to glycosuria; strychnine may occasionally be added to it with advantage.

Arsenic is rarely required or of value when used alone, but in combination with iron and other remedies it will sometimes seem to aid in the case. In certain rare instances, however, where a bullous or pemphigoid condition develops in eczema patients, it will prove invaluable, and will arrest the formation of blisters completely. To be of real value it must then be used with a free hand fearlessly, given every two or three hours, alone, in quantities sufficient to produce the desired effect ; beginning with three drops, the dose may be increased by half a drop every other dose until five, seven, eight or more drops are taken at least six or eight times daily, and sometimes it may even be necessary to give a trifle of opium with each dose to check its action on the bowels When thus given, apart from meals, the remedy should be largely diluted, in one-third to half a goblet of water, and where there is much acidity of the system it is desirable to use vichy or an alkaline water, such as the Buffalo or Londonderry lithia. But, as remarked before, arsenic does not control the eczema, but only the bullous condition alluded to, and should not be commonly prescribed for ordinary cases.

Quinine is often of great service in eczema in elderly people, both to meet the malarious condition often at the bottom of the trouble and as a pure tonic. It is generally best administered in two- or three-grain doses a quarter to half an hour before each meal, the acetate of potassium being taken after the meal.

A direct neurotic treatment is seldom required in elderly people with eczema; strychnine and phosphorus may in certain cases be indicated, but more commonly in connection with or after the alkaline and diuretic treatment previously indicated.

Sedatives are, however, often of the greatest assistance, and are frequently required to secure proper rest at night. For this purpose, phenacetin in five-grain doses, taken with hot water on retiring, often acts admirably, the dose being repeated in an hour if necessary; antifebrin, in six-grain doses, similarly used, is also often of service. Tincture of gelsemium, ten to twenty drops, with a drop of aconite tincture, will often secure perfect rest, even when it has long been disturbed by itching ; it may also be repeated in an hour if necessary.

Alcohol is a substance about which it is difficult to speak in general terms in connection with the class of cases which we are considering, for individuals differ so greatly both in regard to its effects upon them and as to their antecedent habits respecting

its use, that no hard and fast rules can be given. In general, however, it may be stated that the eczema patient is far better without any alcohol, and unless it seems to be required, he will suffer less from the eruption, and it will be more easily cured and less likely to return if he abstains totally than if he uses ever so small a quantity.

But, on the other hand, care must be exercised in withdrawing alcoholic stimulants from those accustomed to them, and in many instances it it is better to allow a certain small quantity of the pure distilled liquors, properly diluted, with the meals, than to deprive them of the same; but if they can be gradually diminished and finally withdrawn with safety, the prospect of a speedy cure will be much improved.

Diet has somewhat to do with eczema in elderly persons, although to a much less extent than in early life. Tea and coffee may generally be taken in moderation, and an ordinary mixed diet of healthful character may be allowed. But in elderly persons, who are taking less and less exercise, the diet should be correspondingly diminished, as has been so admirably shown by Sir Henry Thompson ("Diet in Relation to Age and Activity," London, 1887). The tendency is too often to urge on the patient to take what is commonly called strengthening food, and so the digestive organs are taxed with more than the body requires and can digest, assimilate, and use, and thus the system is loaded with imperfectly elaborated products, while the emunctories are less able than before to rid it of effete substances.

Local Treatment.—For generalized eczema, and that on the trunk and limbs, no application is more comfortable and soothing than ℞ Pulv. calaminæ, præp., ʒ ij; zinci oxidi, ʒ iv; acidi carbolici, ʒ j to ʒ ij; glycerini, ℥ j to ℥ jss; liq. calcis, ℥ j; aquæ rosæ, ad ℥ viij. Sometimes the alkalinity of the lotion is best effected by borax or carbonate of magnesium, and when more astringency is required, two to four drachms of salicylate of sodium may be added to the lotion. This is to be freely sopped over the surface several times daily, or as often as required to allay itching and burning heat, the powder in it being allowed to adhere to the skin, and the part covered only with the ordinary clothing. When there are any exuding surfaces, a trifle of absorbent cotton, loosely pulled apart, may be lightly laid on and allowed to adhere; then comes off on the next application of the lotion, without doing violence to the part, for dressing should never be torn from these raw surfaces. As the treatment proceeds, the raw points lessen in number and size, until the application of the fibres of cotton ceases to be necessary. Care must be exercised, in applying this cooling lotion to a surface of any extent, not to chill the body too greatly, lest serious consequences might ensue in the way of internal disorders and inflammations.

On the more localized patches, especially where there is thickening of tissue with great itching, complete relief can generally

be obtained by the use of tar-and-zinc ointment (℞ Zinci oxidi, ʒ j; ung picis, ʒ iv; ung. aquæ rosæ, ℥ jss) when properly applied. This should be thickly spread on the wooly side of pieces of sheet lint, cut to fit the separate patches; these are then firmly bound upon them with a light cheese-cloth bandage, and removed once or twice in twenty-four hours. It is often better to use the same piece of lint for several applications, spreading fresh ointment on them at each renewal. Where the thickening resists the tarry application, a quarter part of diachylon ointment may be added to the above; in still more rebellious patches a little salicylic acid, ten to twenty grains to the ounce, will aid in the absorbing power.

Ichthyol and resorcin I have not found of much advantage in elderly people, except occasionally in obstinate erythematous eczema about the crotch; here a two-per-cent. or three-per-cent. solution in water, with a little alcohol, wiped over the surface once or twice daily, followed by the calamine and zinc lotion, will sometimes aid in its removal.

In eczema about the head and face about the most serviceable application is that of a tannin-and-carbolic-acid ointment (℞ Acidi tannici, ʒ j; acidi carbol., gr. v. to x; ung. aquæ rosæ, ℥ j), kept continuously applied, and renewed as often as it is rubbed off or soaks in. In some of these cases a calamine-and-zinc ointment, with camphor (℞ Pulv. calam. præp., ℈ j; zinci oxidi, ʒ ss; tinct. camph., ʒ ss; ung. aquæ rosæ, ℥ j), will prove more soothing.

In some cases it will be found desirable to abstain from the ordinary use of water for cleansing for days or even weeks. The applications then are simply renewed, without cleansing the parts other than gently wiping off the diseased surface with a dry cloth, or carefully removing crusts which may have become loosened, replacing the application with the least exposure possible.

When cleansing or stimulation is required, nothing is better than the well-known green soap—a potash soft soap, lightly applied, diluted at the time of using with some water, the part quickly dried, and the appropriate ointment or lotion at once replaced.

Castile soap, being a soda soap, will generally irritate a delicate and inflamed skin. With the exception of tar soap, which is occasionally employed, I may say that medicated soaps are a delusion, and practically are of exceedingly small utility in eczema or other diseases of the skin.

Baths are often thought to be of much service in eczema, but my experience is that, unless most carefully and judiciously used, they effect, as generally employed, infinitely more harm than good in this disease. One of the worst cases of general eczema which I have ever seen is in the person of an elderly gentleman in whom a moderately localized eruption became irritated so that the whole body and limbs were the seat of a terrific eruption

after taking a few sulphur baths. I have also seen Turkish and Russian baths produce most unhappy effects.

But occasionally general baths are required in these cases, and where there is not much moist surface they may be given with advantage, if properly employed. Starch, one to three pounds to a thirty-gallon bath, or a pound or two of gelatin, may be used; the old method of using bran, in a bag, soaked in the bath, is good, but frequently fails to produce enough of a demulcent effect.

Alkalies added to the bath are also of service—carbonate of potash, four ounces; carbonate of soda, three ounces; and powdered borax, two ounces, in the thirty-gallon bath, with a pound or two of starch.

Even when thus prepared, the baths should not be taken too frequently, and it is generally well to wait several days between them. The temperature of the bath should be such as to be agreeable—about that of the body or a trifle warmer—and the duration not more than fifteen or twenty minutes. On coming out of the bath the skin should be dried, with as little friction as possible, with heated towels, and a medicated application made to the affected parts as quickly as possible, remembering still the irritating action of the air on diseased skin.—*Fragments from an article by L. Duncan Bulkley, tn New York Medical Journal.*

Hysterionica Baylahuen.—This plant, which is a native of Chili, has been brought forward in the February 28th number of the *Bulletin General Therapeutique*, by Dr. Baille, and also before him by Carvallo, of Valparaiso, as a remedy of very considerable value in gastro-intestinal troubles, such as dysentery, colitis, and flatulence from intestinal dyspepsia. Dr. Baille says: It is an excellent remedy for diarrhœa and acts very well in dysentery of the acute and chronic type, and bids fair to replace the balsams in the treatment of maladies of the respiratory passages. In genito-urinary troubles hysterionica is of great value, favorably modifying the secretion of the urine and diminishing the bad odors. It can also be used in collodion as a dressing for ulcers, and seems under these circumstances to act very much like the tincture of benzoin.

School Physiology.—I desire to call especial attention to the peculiarly baneful results of teaching young children anatomy and physiology.

At the present time the great majority of well-informed people, and quite a few medical men, believe that anatomy and physiology should be taught in schools, and the practical carrying out of this idea usually results in directing the attention of children to the structure of their bodies and the functions which certain organs perform. A little learning in anatomy and physiology is truly a dangerous thing. The heart will not do its duty more faithfully,

nor will the stomach digest food better because the one who possesses them knows all about their structure and functions. I am fully satisfied from careful observation that the way in which these subjects are taught (except in medical schools) is all wrong and injurious. I have never seen any benefit derived from teaching children a little smattering of anatomy. On the contrary, it is either soon forgotten, or else leads to the habit of introspection, which is a waste of time, and finally leads to a great variety of functional affections.

Next to the doctor in the order of mischief-makers in the business of producing introspectors, is the intelligent mother who has had lessons in physiology. Such a one usually injures her own children and those of her neighbors who come within reach of her amateur teaching of the laws of life.—*J. A. C. Skene, M.D., in "Education and Diseases of Women."*

[Physiology and hygiene are taught in public schools. Yet pupils are encouraged to spend recess in manual training indoors, rather than to be outdoors in "God's sunshine and God's air;" and not only indoors, but in a basement; and not only in a basement, but in an atmosphere contaminated by proximity of water-closets !]

The Value of Cod Liver Oil.—The activity of this important oil is not due solely to the alkaloidal principles which it contains, but is explicable on a variety of grounds. 1. The oil acts in virtue of the fats which are unusually assimilable and readily available for the maintenance of body heat. 2. It acts as an energetic repairer of tissues by reason of its richness in phosphates and other phosphorus-containing bodies. By stimulating the reproduction of cellular elements, phosphorus preserves the tissues in a state of perpetual youth; in other words, raises the vital resistance offered by the tissues to destructive agencies by which they are threatened. Phosphorus is aided in this by the bromides and iodides which are present. 3. Through its alkaloids (butylamine, amylamine, morrhuine) and morrhuic acid it stimulates the nervous system directly, accelerating metabolism, increasing the excretion of urine and sweat, and improving the appetite.—*MM. Armand Gautier and L. Monigues, in Bulletin de l'Académie de Médecine.*

Sauerkraut in the Treatment of Gastric Neuroses.—*Noveaux Remèdes*, quoting from Franz Heller (*Wien. med. Presse*), who has made experiments on himself and others, states that this author suggests sauerkraut at meals as the best remedy for chronic nervous or anæmic dyspepsia. Dyspeptic symptoms, such as regurgitation, difficult digestion, and eructations, disappear in a short time. An effort was made to replace sauerkraut by dilute hydrochloric acid, four drops in water, but without favorable results. Red cabbage was also without avail.—*New York Medical Journal.*

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BOOK NOTICES.

PRACTICAL ELECTRICITY IN MEDICINE AND SURGERY. By G. A. Liebig, Jr., Ph.D., Assistant in Johns Hopkins University, etc., and George H. Rohé, M.D., Professor of Obstetrics and Hygiene, College of Physicians and Surgeons, Baltimore, etc. Profusely illustrated, 383 pages, octavo, cloth, $2.00. Philadelphia and London: F. A. Davis, Publisher.

Part I. discusses electrical and magnetic apparatus, galvanometers, storage-cells, electric motor, telephone, etc.

Part II. takes up the effects of electric currents on various tissues and organs, and appliances for electro-therapeutic work.

Part III. is the application of electricity to disease, especially in gynecology, male genito-urinary organs, and in diseases of the skin.

The whole is an intelligible account of the science of electricity, and a trustworthy guide to its applications in the practice of medicine and surgery.

ELECTRICITY IN DISEASES OF WOMEN, with Special Reference to the Application of Strong Currents. By G. Betton Massey, M.D., Philadelphia. Second Edition, revised and enlarged. 240 pages, 12mo, illustrated, $1.50. Philadelphia: F. A. Davis, Publisher.

So great has been the progress of definite knowledge in electro-therapeutics, especially in pelvic diseases, that in this second edition, fourteen months later than the first, it has been necessary to re-write much of several chapters, and to add new chapters on sub-involution and chronic inflammatory diseases of the appendages.

A New Medical Dictionary. By George M. Gould, A.B., M.D., Philadelphia. Small octavo, 520 pages, half dark leather, $3.25; half morocco, thumb index, $4.25. Philadelphia: P. Blakiston, Son & Co., Publishers.

It contains several thousand words never included in a work of this size, including all the words and phrases used in medicine, with their proper pronunciation and definitions, based on recent medical literature, with tables of the bacilli, micrococci, leucomaïnes, ptomaïnes, etc., of the arteries, muscles, nerves, and plexuses; mineral springs of the United States, etc.

Compend of Human Physiology. By A. P. Brubaker, Philadelphia. Blakiston's Quiz Compends. Cloth, $1.00; interleaved, $1.25.

This valuable student's aid has reached its fifth edition, revised, enlarged, with new illustrations and a table of physiological constants.

Revue Internationale de Bibliographie, médicale, pharmacentique, et vétérinaire, dirigée par le Docteur Jules Rouvier, Prof. Clin. Obstet. et Gynec., Beyrouth, etc , etc. Prix, 10 francs a year. Paris: 23 rue Racine. Also, Beyrouth, Syria.

This grand international quarterly review of medical literature is of the greatest value. The topics are alphabetically arranged, with bold-type head-lines. The French language will not be a formidable disadvantage to American readers. Vol. I., No. 1, bears the date of April, 1890.

Guy's Hospital Reports, Vol. XLVI., 1889.

Many topics are discussed of intense interest to every physician and surgeon. Numerous full-page plates, portraits, charts, etc., adorn the book.

EXCHANGES, PAMPHLETS, ETC.

Jung Amerika, 1480 Pearl street, Cleveland, O. An illustrated German monthly, 50 cents a year.

Tenth Inaugural Address of Clark Bell, Esq., President of the Medico-Legal Society. From *Medico-Legal Journal*, New York.

Germania, Manchester, N H., a journal of rare excellence for the study of German literature, is reduced in price to $2 00 per annum.

Report of Ninety Cases of Rapid Dilatation of the Uterine Canal for the Cure of Dysmenorrhœa and Sterility. By Franklin Townsend, M.D., Albany, N.Y.

Annales de la Société Belge de Microscope. Tome XIII., 1er et 2me fascicule A. Manceaux, libraire-éditenr, rue de Trois-Têtes 12 (Montague de la Cour), Bruxelles.

Modern Cremation. Dr. Prosper de Pietra Santa, Laureat de l'institut (Acad. des Sciences). Publications de la Société Francaise d'Hygiène. 30, rue du Dragon, Paris.

Mobilisation de l'Étrier. Dr. E. J. Moure, Directeur de la *Revue mensuelle de Laryngologie, d'Otologie et de Rhinologie*, etc., etc. Octave Doin, éditeur, 8, place de l'odéon, Paris.

A Case of Congenital Umbilical Hernia; Abdominal Section Six Hours after Delivery; Recovery. By Willis Goss Macdonald, M.D., Assistant in Abdominal Surgery, Albany Medical College. From *American Journal of Obstetrics and Diseases of Women and Children.*

"Trépanation pour hémorrhagie cérébrale," "Traitement des Fractures de la Rotule par l'overtute immediate et large du genou et la suture metallique des fragments cas de fracture ancienne, reconstitution du tendon rotulien. Seize cas d'ouverture du genou Par le Docteur Just Lucas-Championniere, chirurgien de l'hôpital, St. Louis. A. Coccoz, 14, rue de l'ancienne-comédie, Paris.

PERSONAL.

—Dr. J. A. Hagar ('90) is associated in practice with Dr. George Rowe ('65) at Gloversville, N. Y.

—Dr. Noah L Eastman ('86), of Albany, will spend a year or more abroad in post-graduate courses in ophthalmology and otology.

—Professor William James, Harvard University, Cambridge, Mass., requests co-operation in his "Census of Hallucinations." Blank forms will be sent on application.

—Dr. William S. Cooper ('61), one of the oldest practicing physicians in Troy, died Monday, May 26, at his residence on Third street. Dr. Cooper was born in Scotland and came to America when quite young He was surgeon of the One Hundred and Twenty-fifth Regiment, New York Volunteers, during the rebellion.

—Albany Medical College.—Dr. J. D. Craig ('84), demonstrator of Anatomy, will next fall deliver part of the lectures on anatomy; Dr. H C. Gordinier ('86), of Troy, will lecture on the anatomy of the nervous system; Dr. H. Van Rensselaer, on materia medica; Dr. G. G. Lempe ('88) is assistant demonstrator of anatomy; Dr. Larkin ('85) and Dr. Macdonald ('87) are instructors in surgery; Dr. Babcock ('84) in materia medica; Dr. Cook ('73) in diseases of throat and nose; Dr. Russell ('77) in theory and practice; Dr. A. Marsh ('85) in obstetrics; Dr. Losee ('89) in chemistry; Dr. Van Allen ('83) in ophthalmology; Dr. Hennessy ('84) in physiology; Dr. Willard ('87) and Dr. Macfarlane ('88) in histology; Dr. Moore ('87) in clinical ophthalmology. Monthly examinations and afternoon lectures will be continued. The new plan proposes a carefully graded course of three full years, with special attention to practical bedside teaching in every branch.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

Annual meeting, second Tuesday in October. Semi-annual meeting, second Tuesday in May. Stated meetings held Wednesday evenings, in Alumni Hall, at least once a month, from October to May.

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Crawford C. H. 216 Hudson av. 8-9:30, 2-4, 7-8
Crounse H. Clarksville, 9 A. M. 4 P. M.
Crounse J. Altamont, 8-9, 7-9
Culver C. M. 36 Eagle, 10-12, 2-4
Curtis, F. C. 17 Washington av. 8-9, 2-3, 7-8
Davidson J. R. South Bethlehem, 8-9, 1-2, 6-7
DeGraff A. Guilderland, 8-9, 1-2, 6-7
DeSilva, G. R. Preston Hollow
Devol, C 48 Franklin, 8-9, 12-2, 8-9
DuBois Mary, 192 Hamilton, 8-9, 2-3, 7-8
Dwyer M. J. 3 Lancaster, 8-9, 1-3, 7-8
Eastman Noah L. 427 Clinton av.
Elmendorf G. E. Alcove
Featherstonhaugh J. D. 5 Summit, Cohoes, 2-3, 7-8
Fennely P. E. Broadwoy, West Troy, 10-12, 4-5
Fisk F. H. 91½ Hudson av. 8-9½, 1-3, 7-9
Fleischman D. 134 Hudson av. 8-10, 2-3½, 7-8
Fowler A. 29 Second, 8-9, 1-3, 7-9
Freeman S. H. 77 Columbia, 8-9, 1-2, 6-7
Graveline L. C. B. 181 Madison av. 8-9, 1-3, 7-9
Greene F. R. 566 Central av. 8 9, 1-3, 7-9
Hailes W. 197 Hamilton, 9, 1-2, 6-7½
Haines E. South Westerlo
Hale L. 194 Clinton av. 8-9, 2-3, 6-7
Hallenbeck E. C. Bethlehem Centre
Haskell J. M. Bath, Rens. Co. 8-9, 12-2, 7-9
Haynes J. U. 76 Remsen, Cohoes, 8 9, 12-2
Healey J. C. 65 S. Ferry, 8-9, 1-3, 6-8
Hennessy J. V. 139 N. Pearl, 7-9, 1-3, 6-8
Houston, D. W. 136 Mohawk, Cohoes, 1-3, 7-9
Huested A. B. State, c. Eagle
Hun H. 33 Elk, 8-9½, 2-3, 7-8
Hun T. 33 Elk
Keegan P. J. 48 Clinton av. 8-9, 1-3, 6-8
Kilbourne A. W. 792 Broadway, 7-9, 1-3, 6-7½
La Moure U. B. 90 Hudson av. 8-9, 2-3, 7-9
Lempe Geo G. 57 Eagle, 9-10, 2½-4, 7-8
Larkin E. E. 27 Eagle, 8-9, 2-3, 7-8
Lewi M. J. 71 Lancaster, 8½-9½, 1½-3, 6½-8½
Lewi J. 94 Westerlo, 8-9, 2-3, 6-9
Loughran F. W. 232 North Pearl
Lyon G. E. 494 Croton, West Troy, 8-10, 5-7
Marselius W. C. 28 Eagle, 8-9, 2-3, 7-8
Marsh A. 212 State, 8-10, 1-3, 7-8
McAllister J. D. 85 Madison av. c. Rose, 8-9, 12-3, 6-8
MacFarlane R. F. 24 Norton
Macdonald W. G. 76 Hudson av. 7 8½, 1½-3, 7-8½
McHarg M. 850 Madison av. 8-10, 1-3, 7-8
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Mereness H. E. 184 State, 1-3, 6-8
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Moston G. T. 626 Central av.
Munson G. S 30 Eagle, 9-4
Murphy P. M. 66 Jay
Murray W. H. 269 Lark, 8-9, 1-3, 6-7½
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Nellis W. J. 44 Eagle, 8½-10, 1-3, 6-8
Newcomb G. H. 106 Chestnut, 9-10, 1-2, 6-8
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Papen G. W. 268 Madison av. c. Hawk, 8-9, 1-2, 7 8
Peltier G. U. Cohoes, 9, 12-2, 5-8
Perry T. K. 174 Second, 8½-9½, 2-3, 6-8
Peters S. 7 Seneca, Cohoes, 8-9, 1-3, 6-8
Porter C. H. 103 Lancaster, 8-9, 2-3, 6½-7½
Purple, W. L. 46 Second, 9-10, 12-1, 7-8
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Ross J. W. 140 Main, Cohoes, 8½-10, 1-3, 6-8½
Russell S. A. 206 Lancaster, 8-9½, 1-3, 6-7½
Sabin W. B. 1425 B'way, West Troy, 7-8½, 12-2, 6-7
Scattergood C. F. 49 Eagle
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Skillicorn J. H. 324 Hudson av. 8-9, 1-3, 6-7½
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Winne L. B. 72 Livingston av. 8-9, 1½-3, 6-8
Whitbeck C. E. 20 Seneca, Cohoes, 8-9, 1-3, 7-9
Woodward Harriet A. 190 Lancaster
Zeh Merlin Jay 1461 B'way, West Troy, 8-10, 1-3, 6-8

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THE CONSTITUTIONAL TREATMENT OF DISEASES OF THE SKIN.

BY F. C. CURTIS, M.D., ALBANY,
PROFESSOR OF DERMATOLOGY IN THE ALBANY MEDICAL COLLEGE.

[*For Albany Medical Annals.*]

This paper is intended to emphasize the importance of the general treatment of skin diseases. By this I mean the rectification of those abnormal constitutional conditions generally present, and which it does not require the eye of an expert specialist to recognize. The advice is not meant for those who are specialists in dermatology. It is not needed by them, for all contributors to dermatological literature, at the present time at any rate, lay stress upon this. One will not find a book or article on any skin disease, almost without exception, which fails to particularize the importance of the constitutional treatment. My advice is for the general practitioner, and I think it is to a considerable degree needed. It is probably in a measure applicable to most of the specialties. It is the great misfortune of dividing medicine up into specialties that the organs which are respectively the subjects of them become, by reason of being set up by themselves for special study and treatment, detached from the rest of the body, of which it gets to be overlooked that they are an integral part. And it seems especially true of the skin, approaching a disorder of which the general practitioner is very apt to look upon it as something to be treated by local appliances alone, or, as is quite often true, by internal administration of a certain few drugs which have secured repute as useful in diseases of the skin generally, and which seem sometimes to be given in a spirit of necromancy, without any such intelligent theory as the physician would certainly apply if the disease were of some

other organ than this. This is the more unfortunate since evil is quite as likely to follow as good the unintelligent use of arsenic, especially. And this view of the treatment of diseases of the skin helps to keep up the feeling which in a measure pervades the profession that the affections of this organ are difficult to comprehend the nature of and very unsatisfactory to treat, as they certainly are if one lacks a reasonable theory regarding their existence and plan of management, and which is not generally lacking in respect to general systemic diseases. There ought not to be a spirit of empiricism regarding any class of diseases of the body.

The fact is that this envelope of the body is most intimately connected with the organs which it encloses, and its functions have very close relations with theirs. In its fifteen square feet of area are miles of excretory ducts acting correlatively with those inside, a vast space of capillaries, and a nerve supply of great extent, the influence of which, in affecting nutrition and morbid changes is becoming more and more recognized as of very considerable importance, and the medium of transmitting reflexly the sympathy of disease of one part with another. It is impossible to treat skin diseases intelligently without recognizing this fact of the skin being an integral part of the body, and the corelation of its normal and morbid functions with other parts.

It is only necessary to remind of the commonly known disturbances of the skin with some of the diseases of other organs, the etiological relation of which is known to be direct. Take, for instance, pruritus, which is merely a subjective symptom. Itching is, to be sure, an accompaniment of numerous diseases of the skin which have objective symptoms, such as eczema, scabies or urticaria. But in the disease known as pruritus there are no local lesions, and the disease is expressed only by the symptom of itching. The ends of the sensory nerve filaments are irritated by something that is not tangible. This symptom, pruritus, for it is properly only a symptom, is well-known to frequently occur in connection with diabetes, Bright's disease and hepatic disorders, the ingestion of certain foods from the idiosyncrasy of the individual, or the taking of some drugs such as opium. The practitioner, when he has a case of disease of this character, is ready to recognize the cause of a sequent pruritus; what he should be more ready to learn is that, approaching the disease from the other side—that is, from that of pruritus—when consulted regarding it, to look beyond it and find the real disease of which this is, in the majority of cases, only a symptom, and direct his treatment

there. It may be that pruritus is the first symptom to present itself of a grave disease, such as diabetes or Bright's disease, its value in which case is readily appreciated.

No disease better serves my purpose to illustrate the dependence of disorder of the skin upon disorder in some other part of the body than urticaria. This well-known and common affection, when occurring acutely, has an etiological relation to disorder of the stomach, which no one possessing so much as a rudimentary knowledge of medicine needs to be reminded of. Every one who sees the body covered with the tingling, itching, white elevations suddenly coming up, and evanescent in duration, at once has occurring to his professional mind the fact that the stomach is at fault—that some irritating thing is disturbing the balance there, the effect of which, by the telegraphy of the nervous system, is made to show itself upon the surface of the body in this often startling fashion. In chronic urticaria it is sometimes very hard to locate the primary seat of disturbance, but there is no question but that in every case the same reflex relation to disturbance of some remote part of the body is also present. The general practitioner never finds himself hesitating in the recognition of the reflex origin of urticaria, and he proceeds in its treatment at once on the basis of this view, and with use of remedies applicable on general principles. In something the same way of regarding them he might well enlarge his view respecting many other skin diseases, which have in one way or another a dependence upon internal deviations from the normal order.

One of the most important inter-related conditions between skin disease and disease elsewhere is found in the large array of sebaceous gland affections. Taken together they are the commonest of all the disorders of the skin, and, although possessing no serious gravity, yet are exceedingly distressing to a great many people because of the disfigurement which they occasion. None will illustrate better what I am desirous of emphasizing—their dependence on disorder elsewhere. This may be of a transient character, such as that which occurs during the evolutionary period of puberty, with the establishment of which, and the becoming accustomed by the system to the new functions, may pass away, or it may be due to the widely distributed disturbance resulting from fundamental failure in digestion; but in any case its primary pathogeny is remote from its immediate seat. Its entire pathology may not be, perhaps, altogether remote, but seborrhœa and acne, in their various forms, may be accepted as the expression, in the main, of functional ailment

of the digestive organs or of the generative organs (the latter far less frequently), together with attendant or perhaps consequent lack of vigor, or debility. Accepting this and recognizing the nature of the malady as thus expressed, the mind of the practitioner has at once a good working basis for its management. He will immediately bring to bear upon it his knowledge of general principles with which he has a common familiarity, doing just what is his aim in regard to all diseases—that is, to get directly at the etiological factor and remedy it, instead of pursuing the demoralizingly empirical course of hunting up formulas for local treatment alone. The latter has its value certainly, but the not infrequent custom of trusting to such a course is the cause of much unsatisfactory result and of the relegating of diseases of the skin to the category of disagreeable and difficult affections, hard to understand and not easy to treat. The educated physician of to-day proceeds generally in his work upon the basis of a theory regarding the case in hand, and if he will follow the same course here he will accomplish almost all the case calls for by using his common knowledge of disease without employing special remedies.

Another disease which illustrates my point, and with which I would like to emphasize the value of that sort of general treatment which might be called non-special, is eczema. At the last meeting of the State Medical Society, in the discussion which followed a paper by Dr. L. D. Bulkley, of New York, on eczema, the importance of the constitutional treatment was emphasized by every one who contributed to it. This exceedingly common ailment of the skin presents itself under a great variety of conditions. It affects infants and people of advanced life, and is seen at all ages between these; persons of either sex, of all occupations or no occupation, of all conditions. It is, pathologically, an inflammation of the skin, but this shows itself in all degrees of acuteness and under the form of every variety almost of elementary pathological skin lesion. It is so varied in its ultimate pathology, or pathogeny, has such a variety of ill conditions of the body behind it, taxes so the ingenuity of the physician to study out the causes for its existence and the means for their remedy that I have been led to think that, independent of its frequency of occurrence, a knowledge of all that enters into its composition, of the physiology of the organs of the body and their pathological action, would be of more value than of any other single disease with which which we have to do. And yet much of this is quite apart from the necessarily special treatment of this disease.

In fact, the special treatment almost ends with its local treatment, and consists in judiciously deciding for each case whether it is a soothing, protecting application that is needed or a stimulating one, and to what degree. The internal treatment is only a part of general medicine, for the most part. It opens up a wide range for study, though quite in the line of the general practitioner. What a varied series of influences arise in the course of the metamorphosis of food from its reception into the body to its elimination as effete matter, through the organs of digestion, through the carrying current of the circulation, through its brief period of constituting a part of living tissue, and its final casting off after completing its work, back through the blood current and out of the body by one of the emunctory organs. Deviation from its orderly course is the basis of varied ills of the body, one ultimate disease, but, seen from the subjective side, many diseases, in its varied manifestations.

When we have penetrated more deeply by far than we have got into the secrets of the body and learn to trace, if we ever do, an atom of food through its course, we will have learned the most there is to know of the physiology of health and the pathology of chronic disease. One of these diseases will be eczema. Meantime in its treatment we will have to apply, for one thing, what we do know in this direction and to influence them as best we may toward health. Hygienic living, proper nutrition, rest, and medication to regulate the right functional action of the organs that manufacture tissue and that eliminate excretory matter, are in the general line of a good part of the treatment of eczema. In chronic, persistent cases of eczema, either adhering stubbornly to one spot, or showing itself, as it often will, here and there over the body, the disease will not yield until the coated tongue, which is generally found, is cleared up, and it is very satisfactory to see how quickly the manifestation of disease on the skin yields after having put the patient under good conditions and the disordered condition shown by the tongue is removed. Then there comes the judicious selection of tonics, which it will be found are generally worse than useless until the body is ready to assimilate them, just as food is harmful rather than nutritive to a deranged stomach; tonics for blood nutrition, for the nervous system, as well as for the digestive organs, all of them useful and all effective according as they are rightly selected and combined for the case in hand. One can give himself a liberal education in medicine in studying all that goes into the composition of eczema, in physiology, pathology and in therapeutics.

These two large classes of diseases of the skin are the best, perhaps, to illustrate my argument for the value of treatment of dermatological affections on the line of general, non-special treatment, and by the application of the common knowledge of disease and by the use of common remedies. Certainly there are some of these diseases that need no internal treatment whatever, such as those of a parasitic character, which are only local in their origin and existence. And I am aware that much is accomplished by special treatment —that is, that which is not applicable to diseases of any other organs of the body. But the number of internal remedies that are of value in dermatological practice alone is exceedingly limited, and these are very often misused and harmful rather than beneficial. A vast deal may be accomplished by the general practitioner in a considerable number of diseases of the skin if he shuts his eyes to the special existence of the lesions of the skin and sets himself faithfully to put to right performance the organs of the body generally, and by means of common remedies and sanitary measures restores the body in general to health.

There is no more characteristic feature of medical study to-day than its pursuit in narrowed lines. It is minutely subdivided, so that almost every organ has become the subject of a specialty. In the main this is wholesome and right. It is what is done in other professions and expert trades. It focuses the view upon a small field, with the immense advantage of developing knowledge concerning it that could only be obtained by this method. The world to-day is indebted to this subdivision of study and trial for most that it has the advantage of possessing the practical advantage of. But the evil of specialties is that the specialist may narrow his vision so that he cannot see outside of it, and the general practitioner may also fall into the error of permitting the existence of an imaginary fence that encloses these varied fields beyond his view. It is quite certain that it would be hopeless for us all to try to keep up with every specialty, for they every one develop a phraseology some of which is but half comprehensible to the uninitiated. It must also be allowed that they attain expertness in work and details of procedure that are very good and which must remain their own. What I would say, though, is that they must be mainly dependent, after all, in their work upon that general fund of knowledge which is the common possession of all and which all can avail themselves of with equal right and readiness.

ABSTRACTA.

Optical Illusions.—If any one wishes to make an emphatic statement about an occurrence or thing, and says, "It must be so, I saw it myself," he considers the matter is settled. I shall try to show that seeing is not always believing, and that many things we see are merely optical illusions and not to be entirely depended upon as facts.

I.—Illusions Depending on Optical Contrivances.—Probably the best known optical illusion is Pepper's ghost. Here a plate of plane glass is placed at an angle of 45° near the front of the stage, before it the stage floor is some feet lower, and any strongly illuminated object on the floor in a horizontal position appears upright and on the stage. One of my friends recently showed me a device depending on the same principle, by which a photograph on glass is superposed on an ordinary carte.

Reflection is responsible for some of the tricks of the Davenport Brothers and for the curiosities known as living heads without bodies, etc. The converse of this may be seen in the palace of Versailles, where a combination of mirrors makes spectators appear headless.

The "optical paradox" enables one apparently to see through a brick, but really four plane mirrors carry the light around the obstacle.

In the "phantom bouquet" concealed flowers are made by a concave mirror to appear in a vase. Concave and convex cylindrical mirrors cause strange and amusing distortions of the faces of those looking at them.

Refraction makes a pond appear shallower than it is, and a stick put in water appears bent. By refraction of light through layers of air of different densities, the strange illusions known as mirages are produced.

If a wineglass is partly filled with water and inverted on a plate with a coin on it, refraction causes the coin to appear on the surface of the water, and it is also seen directly, but enlarged. By means of the double refraction of Iceland spar, a dot placed under it appears as two.

II.—Illusions Depending on the Structure of the Eye; Color Blindness.—Several interesting illusions depend on the fact that an image on the retina lasts about an eighth of a second. In the thaumatrope a card has an object drawn on each side, say a bird on one side and a cage on the other; if the card is rotated, the images are superposed and the bird appears in the cage. In the zoetrope and the phantascope a moving object, as a swinging pendulum, is drawn in successive stages, and while the series is rotated and viewed through slits, the pendulum appears to be swinging backward and forward. For the same reason a vibrating

string appears as a flat plate, and we think lightning lasts much longer than it actually does, while without this "persistence" fireworks would lose most of their beauty. The rotating vacuum bulbs form a very pretty illustration of this, but as the illumination is intermittent, the tube appears as a rayed star and not as a continuous circle.

That white light is composed of all colors may be shown by rotating a disk with segments, colored in proper proportions, when the colors are blended, and it appears white, or more correctly gray.

Physiologically, white light is made up of the three colors, red, green and violet, which we probably perceive by three sets of nerve fibres of the retina. On the border of the retina the red-perceiving nerve fibres are absent. We can see this by holding a red pencil in front of the eye at arm's length, and while keeping the eye fixed, moving the pencil round sideways, until we reach a point at which the pencil is visible, but appears black. If the eye has an excess of one color presented to it for some time, the nerve fibres corresponding to that color are incapable of acting for a short period, and a white surface appears tinged with the complementary color. This effect has been largely used by a certain firm for advertising purposes. Similarly a strip of white paper on a piece of bright green covered with white tissue paper appears pink.

An ingenious advertisement has blue figures on a red ground. When these are viewed in the shadow and slightly moved, the blue marks appear to dance about the paper, for when the eyes are in focus for the red, an image for the blue is formed in front of the retina, and is therefore indistinct; when the blue is right, the red is indistinct; as the red rays converge to a point behind the retina, the rapid changing of the focus of the eye from one to the other position makes the edges indistinct, and gives the idea of motion.

If santonin is taken, white appears yellow, as this drug has the property of destroying the violet-perceiving fibres.

If a thin platinum wire is made incandescent with an electric current, its apparent thickness is greatly increased ; this is due to "irradiation," or the encroaching of bright parts on darker ones; similarly any one looks larger in light than in dark clothes, and a white wafer on a black ground looks larger than a black wafer on a white ground. The effect of background may be noticed in a snow storm; the snow looks black against the light sky, but white against the dark earth. Irradiation also explains the appearance of a pole with the sun as background, when the pole appears narrower, or even discontinuous, where in front of the sun's disk. A piece of black thread held in front of the gas shows the same phenomenon.

A defect of the eye, known as spherical aberration, causes the eye to see a bright point as a star. Gas lamps in foggy weather show this well.

Milk looks white and blood looks red because the eye has not sufficient magnifying power to perceive that colored or opaque particles are floating in a colorless liquid.

The part of the retina where the optic nerve enters the eye is quite blind; to observe this, put a dot and a cross on a piece of paper about three inches apart, close the left eye, and fix the right eye on the cross to the left of the paper, and at a certain distance (about nine inches) the dot entirely disappears.

III.—Optical Illusions Depending on the Brain, or the Interpretations of the Sensations Received by the Eye.—If a pin be held by the point quite close to the eye, and a pin-hole in a card be held between the eye and a light, the pin will appear head downward, owing to the upright shadow being inverted by the judgment, as if it were the inverted image usually received on the retina.

The experiment known as Scheiner's is curious. By looking at a pin through two holes very close together two pins are seen, as an image on the retina is produced by the rays of light passing through each of the holes.

Our having two eyes makes some strange illusions possible. Let a paper tube be placed to the left eye and the hand be placed by the right side of it, when a hole will appear in the middle of the hand. This property of the brain of combining the images of the two retinas is occasionally of use in tracing the form of an object under the microscope without the aid of a drawing prism.

The stereoscope gives the appearance of solidity by combining two slightly different views by means of prismatic eye-pieces. Two somewhat similar "cartes" placed under it are blended to a curious composite portrait. If two bank-notes are observed in it, and there is any appearance of solidity, they are not identical, and therefore one is forged.

That our judgment of distance largely depends on having two eyes may be amusingly shown by trying to thread a needle with one eye closed.

The pseudoscope is a combination of prisms which inverts the normal relation, and makes near objects appear distant, and *vice versa*, in a most bewildering way.

The curious rotation of "strobic circles" partly depends on persistence and partly on the fact that the curvature of the eye is not exactly the same in the vertical and horizontal direction.

Pictures must be classed as optical illusions, for artists attempt to make objects on a flat surface appear to have three dimensions. So well is this done at times that we think the eyes of a portrait follow us as we move about a room.

The effect of neighboring forms in misleading the judgment may be shown by placing two exactly equal, somewhat horseshoe-shaped pieces of cardboard with the narrow part of the one opposed to the broad part of the other, when the latter will always look larger.

How big does the sun look? is a question which would get various answers; or, to put it more definitely, what is the diame-

ter of a sphere which just hides the sun's disk at a certain distance, say ten feet? As far as I can answer the question, I should say between three and four inches. This is an example of the difficulty of estimating the size of an object with nothing to compare it with; when on the horizon, the sun appears larger, for there we may have comparison objects. When we see people walking on the top of a small hill, the summit of which is sharply defined against the sky, they appear gigantic. The "Specter of the Brocken," a shadow cast by the rising sun, may also be mentioned.

An amusing error of judgment is often made when one at-attempts to show the distance from the floor a hat on a gentleman's head would reach.

If a square is divided in one direction by parallel lines, it appears elongated in the direction of the lines; in dress this is useful, for vertical stripes make a lady look taller and thinner.

Illusions of motion are common. We may watch a waterfall till the water appears to stand still, and the rocks behind it move up. While sitting in a train and watching another train passing, it is impossible if the latter be of closed coaches (like a mail train), to say which of four things is happening. The other train may be at rest, or we may be at rest, both trains may be moving in the same direction, but ours quicker, or in contrary directions. We can only settle the question by looking out of the other window.

On looking at a bright sky I can see spots moving up and down, and looking like snakes. These are known as muscæ volitantes, and are due to moving opaque particles in the vitreous humor of the eye, throwing a shadow on the retina.—*J. F. Liverseege, A.I.C., M.P.S., Midland Counties Chemists' Association; Scientific American.*

Antipyrin Increases Solubility of Caffeine.—Tanret has shown that in adding to caffeine nearly its own weight of salicylate or benzoate of sodium the solubility of caffeine in water is greatly increased. In the *Répertoire de Pharmacie* for February 20, 1890, attention is called to the fact that antipyrin likewise possesses a similar property of increasing the solubility of the salts of quinine and likewise added to caffeine increases the solubility of the latter. It is claimed that it is only necessary to add to the caffeine an equal weight of antipyrin to render the former substance entirely soluble in cold water. With warm water it is claimed that it is possible to dissolve seven and one-half grains of caffeine in one hundred and sixty minims of distilled water by the addition of twelve grains of antipyrin, and that the solution so produced is permanently limpid. This increase of the solubility of caffeine by the addition of antipyrin greatly favors its subcutaneous administration, since through its aid fifteen grains of caffeine may be dissolved in three ounces of

water, so that the use of caffeine in neuralgia or migraine will be greatly facilitated by the combination with it of antipyrin; further, the antipyrin may be expected, in these affections, to increase the probability of cure.—*Therapeutic Gazette.*

ANTIPYRIN IN WHOOPING-COUGH, CHOREA AND ENURESIS.—Dr. Jean Bouisson (*Lyon Médical*, February 9, 1890). In whooping-cough his results were practicaliy *nil.* In chorea his success was most remarkable. Of nineteen patients treated with antipyrin, eleven were completely cured, while six were greatly improved. In nocturnal incontinence of urine his results were most striking. Eight patients suffering from this affliction were treated with antipyrin and all eight were completely cured, although a number of them had suffered from nocturnal incontinence for years, and had proved rebellious to all treatment. The amount given in twenty-four hours varied from thirty to sixty grains, according to the age of the children. The author advises its administration in some alkaline liquid, Vichy water for example, rendering it more readily taken by children. It may be sweetened with syrup.

NITRATE OF SILVER IN GONORRHŒA.—Dr. L. Friedheim, assistant in the clinic of Professor Neisser at Breslau, who has made a large number of observations with several drugs, such as zinc, lead, bismuth, tannin, various preparations of mercury, permanganate of potassium, creolin, etc., to test their astringent effect as well as their capacity for destroying gonococci, is equally dissatisfied with all the usual drugs. They all had either no permanent effect in destroying gonococci, or they irritated the mucous membrane to such an extent that their administration had to be stopped. Nitrate of silver alone acted quite satisfactorily. The author reports on three hundred and eighteen cases treated with this drug, two hundred and thirty-seven of which proved its antibacterial effect satisfactorily. Unfavorable results were chiefly obtained with out-patients who lived in unsatisfactory circumstances. The following is the *modus operandi* in Professor Neisser's clinic : Every acute gonorrhœa is immediately treated with an injection of nitrate of silver of the strength of from 1 in 4,000 to 1 in 2,000. The discharge generally increases at first, becoming thicker and more purulent, but very soon decreases and becomes thinner, whiter and more epithelial. The gonococci decrease in a remarkably short time, and sometimes entirely disappear in a few days. The injections are first administered from four to six times a day, and are then reduced to one or two in the twenty-four hours, when at the same time a mild astringent like zinc or boracic acid is injected; but even after entire cessation of the discharge, the nitrate of silver is still injected once a day for many weeks. The proper regimen must be employed for an equally long time. The injections are administered even when complications occur, especially epididymitis.—*Lancet.*

Lassar's Treatment of Baldness.—The treatment recommended by Lassar, of Berlin, for alopecia pityrodes and alopecia aerata has been attended by some brilliant results. According to Dr. Graetzer's article in the *Therapeutische Monatschrift*, but few cases resist the treatment, and after a few applications the downy sprouts may be seen. The following procedure is to be repeated daily :

1. The scalp should be lathered with a strong tar soap for ten minutes.

2. This lather is to be removed with lukewarm water, followed by colder water in abundance ; then the scalp is to be dried.

3. A solution of bichloride of mercury, 1 to 900, the menstruum being equal parts of water, glycerine, and cologne or alcohol, is to be rubbed on.

4. The scalp is then rubbed dry with a solution containing beta-naphthol, 1 part, and absolute alcohol, 200 parts.

5. The final step in the process is an anointing of the scalp with an unguent containing 2 parts of salicylic acid, 3 parts of tincture of benzoin, and 100 parts of neatsfoot oil.

This treatment should be persisted in for a period of six weeks or longer. Lassar, who, by the way is the secretary-general to the International Congress of this year, has done much to awaken the profession from the lethargic state into which it has fallen in regard to the treatment of alopecia. He is reported to have treated a thousand cases in the manner described.—*N. Y. Med. Jour.*

Transplanting Tuberculosis —The State Board of Health of California has been greatly exercised over the danger to which it is believed the state is exposed through the immigration of a large number of persons suffering from tuberculosis. It even suggested, in a recent bulletin, the advisability of establishing a strict quarantine against consumptives until measures of isolation and disinfection could be undertaken. The daily press of San Francisco has not been slow to take up the question, and the result has been a scare and a sensation of such magnitude that even the proposed prize-fight has been for the moment forgotten. —*Popular Science News.*

Cocaine Pencils for use on the chafed and irritated skin, or on skins very susceptible to insect bites, etc., are made by the addition of two per cent. of cocaine to the ordinary cocoa butter pencils, and converts the latter into a cosmetic remedy which gives almost instant relief when rubbed over the irritated spot.—*British Medical Journal.*

Doctor Flint is quoted as saying : "I have never known a dyspeptic to recover vigorous health who undertook to live after a strictly regulated diet, and I have never known an instance of a healthy person living according to a strictly dietetic system who did not become a dyspeptic."

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MEDICAL LEGISLATION OF 1890.

Legislation of interest to the medical profession was effected to an unusual degree during the last session of the legislature. Probably chapter 507 of the laws of 1890, which became a law on receiving the executive sanction but a few days before the limit of time allowed after adjournment of the legislature, will attract the most attention, it being an act providing for the appointment of boards of medical examiners for the state of New York. This bill is the rather unsatisfactory outcome of years of effort on the part of the State Medical Society to secure state examination and license. Its effort has always met the opposition of the less liberal part of the homœopathic members of the profession, of all of the eclectic class and of the irregulars of all sorts. Each year the society has been more liberal in the terms of the bill, and finally last year made a strong effort to secure the passage of a bill which proposed a board of examiners to be appointed by the regents, without restriction as to its composition, whether homœopathic or otherwise. Even this, however, met with the usual opposition, and it was discovered that the homœopathic fraternity had prepared a bill to establish three boards of examiners, actuated, perhaps, not so much by a desire for state examination as by the feeling that it was inevitable and that a law giving them a separate board would serve their interests best. Moreover, they had worked with such assiduity that there was hardly a member of the legislature who had not been importuned by such numbers of his homœopathic constituents to favor this bill as to render his action almost imperative. If one tithe of the effort had been put forth by

our own members of the profession, a single-board bill would have been enacted. When it was found that the choice lay between a three-board bill and none at all, it was concluded best not to oppose the passage of this bill, although it could doubtless have been defeated. Material amendments were secured before its passage. Experience with it will determine whether it will remain on the statute books. It provides for the appointment of three boards of examiners, September, 1891, to represent the State Medical Society and the homœopathic and eclectic societies, respectively, from lists of nominees by these societies, by the Board of Regents. These boards are to submit lists of questions to the Regents, who from them shall select the questions to be submitted, which shall be the same for each board, except in therapeutics. The questions are to be presented at each examination by an examiner appointed by the Regents, and are to be answered in writing, the answers to be submitted by the examiner to the respective boards, who will report upon them to the Regents officially, their report being subsequently kept on file, the same standard being required by the Regents from all the boards. A license to practice is issued to those passing successfully, and will be required of all prior to commencing practice in this state after September 1, 1891. The present requirements as to study and graduation are required as preliminary, and this law is supplementary, not amendatory, to existing laws It is a distinct step in the direction of elevating medical practice in this state, for which the State Medical Society has worked these many years; in fact, to elevate the profession was the cause of its establisment in 1807. Further amendments, doubtless soon to come, will make it a more perfect law.

Chapter 499, laws of 1890, amends in some particulars the law of last year providing for the preliminary examination of medical students. It allows the examination to be passed during the first year of medical study instead of requiring it to be passed before beginning study, and it is not required if the candidate possesses qualifications acceptable to the regents as equivalent to it. Chapter 500 also is an amending law of the act for licensing physicians.

A law was passed "to prevent blindness," which requires midwives to report to a physician or health officer cases of ophthalmia in infants.

The law establishing a state commission in lunacy of last year is amended in numerous particulars, though not radically. Physicians should bear in mind that under this law it is unlawful for one to make a certificate of insanity for commitment to custody unless he

has filed his certificate as a medical examiner, obtained from the county judge, with the county clerk and forwarded a certified copy of the same to the State Commission in lunacy at Albany, the interval of one year allowed by the law having already expired. F. C. C.

Physicians' Vehicles a Taxable Nuisance.

The vehicle tax imposes upon Albanians, physicians included, a fine of five dollars for each team and three dollars for each single horse, and an extra license plate costing fifty cents for each vehicle used alternately.

But, according to the *Evening Journal*, June 19, Assistant Corporation Counsel Delehanty rises to explain that the law "fixes the limit at vehicles drawn by animal power. Bicycles might be included, but the intention of the statutes was not to include mamals."

This concession exempts the kangaroo, the camel, the whale, and other mammals. Physicians, therefore, are simply required to prove that horses are classified in the mammalian order of zoölogy. And farmers who are admitted into Albany free when they bring produce *to sell*, but must be licensed when they drive in *to buy* and others who prefer to drive into Albany, rather than into Troy or Schenectady, to make purchases or to consult our physicians or lawyers, may escape punishment for this criminal conduct if they drive "mammals;" or they may kindly hire shed-room for their vehicles and animals outside the city limits, and patronize our electric cars while their own vehicles are resting. But such courses might be interpreted as unrighteous evasion of tax. So, at some future time, might be condemned the application of electric motors to wagons, instead of "animal power."

The expression quoted above, "vehicles drawn by animal power," leads to the inference that the true inwardness of the bill is to favor the electric-car monopoly. Therefore, let no one corruptly object to the tax or evade it. Let no man buy or sell or ride without the license mark of the beast.

Physicians are warned also not to drive their vehicles on the sacred market pavement before one o'clock P. M. on any day unless they have produce to sell, nor after one o'clock P. M. under any circumstances whatever, under penalty of a fine varying according to the gravity of the offence and the weight of their wagon. That the pavement is so fragile as to be injured by

travel seems absurd when we were told, a few weeks after it was laid, that what it then needed was heavy travel to condense and harden it! It is difficult to see what injury can result from travel on this asphalt pavement after market hours. The public were at one time assured that it would not be easy to crack this "crack" pavement.

BOOK NOTICES.

OPHTHALMOGY AND OPHTHALMOSCOPY FOR PRACTITIONERS AND STUDENTS OF MEDICINE. By Dr. Hermann Schmidt-Rimpler, of Marburg. Translated from the Third German Revised Edition. Edited by D. B. St. John Roosa, M.D., LL D., of New York. 183 woodcuts and three colored plates, 571 royal octavo pages; cloth, $6.00. Wood's "Specialties in the Practice of Medicine." New York: William Wood & Company, 56 and 58 Lafayette Place, New York.

In order the better to fill the design expressed on the title page, "for students of medicine," it is to be regretted that greater liberties were not taken to introduce slight changes into the translation. For instance, the statement on page 27 that plano-convex and plano-concave lenses refract rays of light, which pass through the periphery "even more irregularly (spherical aberration) than do bi-convex and bi-concave lenses," will not pass unchallenged. In various places numerals are used as on page 15, "Not more than 6.0 or 8.0 of the solutions should be prescribed," etc., leaving it for the reader to conjecture what denomination is meant.

In the use of collyria containing salts of lead, greater caution should be insisted upon by every practitioner, specialist or not, than can be found in the author's reference to his "favorite" on page 14. And, on the same page, directions for cold compresses to be changed every minute or two, should be corrected to read "every second or two," as a general practitioner or student might be misled.

In spite of such "dead flies in the ointment of the apothecary," it is true that this volume contains much that every practitioner would find of value, and that the library of every specialist would be enriched by its presence.

HOW TO PRESERVE HEALTH. By Louis Barkan, M.D., Brooklyn. American News Company, New York.

An admirable book intended for the general public, and indorsed by Fordyce Barker, M.D., Paul F. Munde, M.D., and others.

MEDICAL EDUCATION, Regulation of the Practice of Medicine, etc. Historical Data of all Medical Colleges in the United States and Canadas.

A large octavo volume issued by the Illinois State Board of Health.

STORIES OF A COUNTRY DOCTOR. By Willis P. King, M.D. 400 pages, price $2.50. Kansas City, Mo.: Hudson-Kimberly Publishing Co.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA. Thirty-sixth year, April, 1889. Octavo. Wilmington, N. C.

PAMPHLETS.

Chloralamid. Lehn & Fink, New York.

New York Cancer Hospital. Fifth Annual Report.

Tobacco Amblyopia. Leartus Connor, A.M., M.D., Detroit.

Yale University, Department of Medicine, New Haven, Conn.

A History of Spectacles. L. Westbrook Fox, M.D., Philadelphia.

The Four Commencements. J. M. Bodine, M.D., Louisville, Ky.

Electrolysis in Stricture of Rectum. R. Newman, M.D., New York.

Cystic Goitre: Electrolysis. E. Fletcher Ingalls, M.D., Chicago, Ill.

Blunt Curette in Uterine Hemorrhage. Thomas W. Kay, M.D., Chicago.

Anomalies of the Ocular Muscles. Third Paper. George T. Stevens, M.D., New York.

Twenty Consecutive Cases of Abdominal Section. L. S. McMurty, A.M., M.D., Louisville, Ky.

Stricture of Rectum; Intestinal Obstruction; Inguinal Colotomy. Charles B. Kelsey, M.D., New York.

Sketch of the Late Dr. J. Edward Turner, Founder of Inebriate Asylums. T. D. Crothers, M D., Hartford, Conn.

"Epicystic Surgical Fistula for Vesical Catarrh." "Intestinal Anastomosis." John D. S. Davis, M.D., Birmingham, Ala

"Local Treatment of Syphilitic Phenomena." "Hypertrophy and Atrophy of Tissue." G. Frank Lydston, M.D., Chicago.

"Œdema of Cervix Uteri a Symptom of Chronic Disease." "Gynecological Therapeutics." Andrew F. Currier, M.D., New York.

National University, Chicago. Forty-five departments. "Any person in any study." College of Medicine, Flavel S. Thomas, M.D., Dean.

Hæmoglobin Compound, or Bullock's Blood in Therapeutics. F. E. Stewart, M.D., Ph.G. Published by Parke, Davis & Co., Detroit and New York.

"Report on the Section of Practice of Medicine" (Phthisis and Pneumonia). "Complications of Chronic Endarteritis." "Early Detection of Pulmonary Consumption." Wm. Buckingham Canfield, A.M., M.D., Baltimore

"A Rational Method of Extension of Spinal Cord and Column." "A Rational Brace for Treatment of Caries of the Vertebræ." "A Practical Splint for Inflammatory Conditions of Joints." "Treatment of Torticollis." Charles F. Stillman, M.Sc., M.D., Chicago, Ill.

MEDICAL NEWS.

An Act to Establish Boards of Medical Examiners of the State of New York for the Examination and Licensing of Practitioners of Medicine and Surgery; and to Further Regulate the Practice of Medicine and Surgery.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. From and after the first day of September, eighteen hundred and ninety one, there shall be and continue to be three separate boards of medical examiners for the State of New York, one representing the Medical Society of the State of New York, one representing the Homœopathic Medical Society of the State of New York, and one representing the Eclectic Medical Society of the State of New York. Each board shall consist of seven members, and each of said members shall serve for a term of three years, from the first day of September next after his appointment, with the exception of those first appointed, who shall serve as follows, viz.: Two of each board for one year, two of each board for two years, and three of each board for three years from the first day of September, eighteen hundred and ninety-one. The power of appointment shall vest in the Board of Regents of the University of the State of New York, which shall appoint the members of said boards of examiners respectively from lists of nominees to be submitted by each of the said three medical societies, the number of nominees by each of said societies to equal or exceed twice the number of appointments so to be made from each of said societies. Each of said nominees shall be nominated by a majority vote at the annual meetings of the society with which said nominee may be in affiliation, and the names of persons so nominated shall be transmitted before the first day of July, eighteen hundred and ninety-one to the said Board of Regents, under the seal of and signed by the president and secretary of the society so nominating. From these lists of nominees, respectively, said Board of Regents shall, prior to or during the month of July, eighteen hundred and ninety-one, appoint three separate boards of examiners, each board to be composed exclusively of members of the same medical society. In case of failure of any or all of said medical societies to submit nominees as aforesaid, said Board of Regents shall, prior to or during the month of July, eighteen hundred and ninety-one, appoint members in good standing of the corresponding society or societies entitled to nominate, without other restriction. Each one of said appointees, prior to appointment, shall furnish evidence of having received the degree of doctor of medicine in

course from some legally incorporated medical college authorized to confer the same, and shall certify to said Board of Regents to having practiced medicine or surgery under the laws of this state for a period of not less than five years immediately prior to such appointment. The said Board of Regents shall fill vacancies by death or otherwise for unexpired terms of said examiners from the respective lists of nominees submitted by the said medical societies; and may remove any member of either of said boards for continued neglect of the duties required by this act, or on recommendation of the medical society of which said members may be in affiliation, for unprofessional or dishonorable conduct. The Board of Regents shall, in their first appointments, designate the number of years for which each appointee shall serve. The appointments of successors to those members whose terms of office will expire on the first day of September of each year, shall be made by the Regents during or before the month of July of such year, upon the same conditions and requirements as hereinbefore specified with reference to the appointment of three separate examining boards, each to be composed exclusively of members of the same medical school and society as are hereinbefore provided.

§ 2. Said boards shall be known by the name and style of Boards of Medical Examiners of the State of New York. Every person who shall be appointed to serve on either of said boards shall receive a certificate of appointment from the Regents of the University, and within thirty days after receiving such certificate shall take, subscribe and file in the office of the Secretary of State the oath prescribed by the twelfth article of the constitution of this state. Each of said boards shall be authorized to take testimony concerning all matters within its jurisdiction, and the presiding officer, for the time being, of either of said boards, or of any of the committees thereof, may issue subpœnas and administer oaths to witnesses. Each of said boards of examiners shall make and adopt all necessary rules, regulations and by-laws not inconsistent with the constitution and laws of this state or of the United States, whereby to perform the duties and transact the business required under the provisions of this act, said rules, regulations and by-laws to be subject to the approval of said Regents.

§ 3. From the income provided by this act the Regents may pay, not to exceed said income, all proper expenses incurred by its provisions; and if any surplus above said expenses shall remain at the end of any year, it shall be apportioned by said Regents among said examiners pro rata, according to the number of candidates examined by each.

§ 4. The first meeting of each of the examining boards respectively shall be held pursuant to a call issued by the secretary of the Board of Regents, within two months from the first day of September, eighteen hundred and ninety-one, suitable notice in

the usual form being given to each of the members thereof, specifying the time and place of meeting. At the first meeting of each of the boards, respectively, an organization shall be effected by the election, from their own membership, of a president and secretary. For the purpose of examining applicants for license, each of said boards of medical examiners shall hold one or more stated or special meetings in each year, pursuant to a call of the Board of Regents, due notice of which shall be made public, at such times and places as may be determined by the Board of Regents; but each examination shall be under the supervision of an examiner appointed by the Board of Regents, and who shall not be a member of any board of medical examiners. At said stated or special meetings a majority of the members of a board shall constitute a quorum thereof, but the examination may be conducted by a committee of one or more members of the board of examiners, duly authorized by such board.

§ 5. The several boards of medical examiners shall submit to the Board of Regents lists of examination questions for thorough examinations in anatomy, physiology and hygiene, chemistry, surgery, obstetrics, pathology and diagnosis, and therapeutics, including practice and materia medica; from the lists of questions so submitted the Board of Regents shall select the questions for each examination, and present the same to the candidates at each examination by an examiner appointed therefor by the Board of Regents, and such questions for each examination shall be so selected as to require the same standard of excellence from all candidates, except that in the department of therapeutics, practice and materia medica the questions shall be in harmony with the tenets of the school selected by the candidate.

§ 6. Said examinations shall be conducted in writing, in accordance with the rules and regulations prescribed by the Board of regents, and shall embrace the subjects named in section five of this act. At the close of said examinatian the examiner appointed by the Board of Regents having supervision thereof, shall forthwith deliver to the boards of medical examiners having charge of such examination, or to their duly authorized committee, the questions submitted to and the answers of each applicant, and such board of medical examiners, without unnecessary delay, shall transmit to the Regents of the University an official report, signed by the president, secretary and each acting member of said board of examiners, stating the examination average of each candidate in each branch, the general average, and the result of the examination, whether successful or unsuccessful. Said report shall embrace all the examination papers, questions and answers thereto. All the examination papers so returned shall be kept for reference and inspection among the public records of the University.

§ 7. On receiving from either of said boards of medical examiners such official report of the examination of any applicant for

license, the said Regents issue to every applicant who shall have been returned as having successfully passed said examination, and who shall in their judgment be duly qualified therefor, a license to practice medicine and surgery in the state of New York. The Board of Regents shall require the same qualifications from all candidates, except in the department of therapeutics, practice and materia medica, in which the standard shall be determined by each of the boards of medical examiners respectively. Every license to practice medicine or surgery, issued pursuant to the provisions of this act, shall be subscribed by the chancellor and secretary of the University of the State of New York, by each medical examiner who reported the licentiate as having successfully passed said examinations, and also by those of the Regents who examined and approved the credentials of said licentiate upon the application for examination. It shall also have affixed to it, by the person authorized to affix the same the seal of said University. Every such license shall be substantially in the following form :

"The Regents of the University of the State of New York. To all whom it may concern, greeting :

"Be it known that A. B., on the.....day of.....A. D..... having offered to us satisfactory proof that.....was more than twenty-one years of age, and had received a proper preliminary education; that..... had attended three full courses of medical instruction, the last course at....., in....., in the years of....., and had received from the.....of.....the degree of doctor of medicine ; we thereupon gave a written order for the examination of said A. B. before one of the boards of medical examiners of the State of New York; that the said A. B. was fully examined before said board and found proficient and qualified to practice medicine and surgery by the examiners whose signatures are hereto attached. We, therefore, have granted to said A. B. this our license to practice medicine and surgery in the state of New York as a physician and surgeon, and have caused the names of the chancellor and secretary of our Board of Regents and said examiners to be subscribed, and the seal of the University to be affixed hereto, and have also caused this license to be recorded in book.....of medical licenses, on page....." Before said license shall be issued, it shall be recorded in a book to be kept in the office of said Regents, and the number of the book and the page therein containing said recorded copy shall be noted in the body of the license. Said records shall be open to public inspection, under proper restrictions as to their safe keeping, and in all legal proceedings shall have the same weight as evidence that is given to the record of the conveyances of land.

§ 8. From and after the first day of September, eighteen hundred and ninety-one, any person not thertofore lawfully authorized to practice medicine in this state, and desiring to enter

upon such practice may deliver to the Regents of the University, upon the payment of twenty-five dollars into the treasury of the University of the State of New York, a written application for license, together with satisfactory proof that the applicant is more than twenty-one years of age, is of good moral character, has obtained a competent common school education, and has either received a diploma conferring the degree of doctor of medicine from some legally incorporated medical college in the United States, or a diploma or license conferring the full right to practice all the branches of medicine and surgery in some foreign country, and has also studied medicine three years, including three courses of lectures in different years in some legally incorporated medical college or colleges prior to the granting of said diploma or foreign license; provided that two courses of medical lectures, both of which shall be either begun or completed within the same calendar year, shall not satisfy the above requirement. Such proof shall be made, if required, upon affidavit. Upon the making of such payment and proof, the Board of Regents, if satisfied with the same, shall direct the secretary thereof to issue to said applicant an order for examination by any one of said boards of medical examiners which said applicant may elect. In case of failure at any such examination, the candidate, after the expiration of six months, and within one year, shall have the privilege of a second examination by the same board to which application was first made, without the payment of an additional fee. And it is further provided that applicants examined and licensed by state examining boards of other states, on payment of ten dollars to the University of this state, and on filing in the office of said Regents a copy of said license, certified by the affidavit of the president and secretary of such board, showing also that the standard of acquirements adopted by said State Examining Board is substantially the same as is provided by sections five and six of this act, shall, without further examination, receive from said Regents a license conferring on the holder thereof all the rights and privileges provided by sections eight and nine of this act.

§ 9. On and after the first day of September, eighteen hundred and ninety-one, no person, not theretofore a legally authorized practitioner of medicine and surgery, under the laws of this state then in force, shall practice medicine or surgery in this state, unless that person shall have received from the Regents of the University, after examination and approval, as herein provided, a license to practice as a physician and surgeon, and unless said license shall have been registered as required under the provisions of chapter six hundred and forty-seven of the laws of eighteen hundred and eighty-seven, or unless such person shall hold a license from a state examining and licensing board of another state, and shall have been licensed by the Board of Regents, as provided by this act.

§ 10. Nothing in this act shall be construed to interfere with or punish commissioned medical officers serving in the army or navy of the United States, or in the United States Marine hospital service while so commissioned, or any one while actually serving as a member of the resident medical staff of any legally incorporated hospital, or any legally qualified and registered dentist exclusively engaged in practicing the art of dentistry, or interfere with manufacturers of artificial eyes, limbs or orthopedical instruments or trusses of any kind from fitting such instruments on persons in need thereof; or any lawfully qualified physicians and surgeons residing in other states or countries, meeting registered physicians and surgeons of this state in consultation, or any physician or surgeon residing on the border of a neighboring state, and duly authorized under the laws thereof to practice medicine or surgery therein, whose practice extends into the limits of this state; providing that such practitioner shall not open an office or appoint a place to meet patients or receive calls within the limits of the State of New York; or physicians duly registered in one county of this state, called to attend isolated cases in another county, but not residing or habitually practicing therein.

§ 11. This act shall take effect immediately.

District Physicians have been appointed by Mayor Manning as follows: Second District, 3d and 4th wards, bounded by Gansevoort, South Pearl and Hamilton streets and the river, Dr. F. D. Morrill ('81), 74 Westerlo street. Third District, second police precinct, bounded by Quackenbush street and Clinton avenue, Lark, Spruce, Eagle and Hamilton streets and east line of city, Dr. F. W. Loughran ('90), 232 North Pearl street. Fourth District, third police precinct, bounded by Quackenbush street, Clinton and Lexington avenues, and north and east lines of city, Dr. A. W. Kilbourne, 792 Broadway. Fifth District, fourth police precinct, bounded by Eagle, Spruce and Lark streets, Clinton and Lexington avenues, and south line of city, Dr. Mark S. Leavy, 217 Madison avenue. Sixth District, fifth police precinct, all of the city of Albany west of Lexington avenue, Dr. James B. Kennah ('89), 315 Central avenue; "Dr" Booth holds over as district physician for that part of Albany lying south and east of Hamilton and Eagle streets, excepting the part north of Gansevoort street and east of South Pearl street.

Medical and Law Students' Preliminary Examinations, under supervision of the Board of Regents, will be held in the Albany Medical College, September 23, 24 and 25.

PERSONAL.

—Dr. John M. Bigelow ('70), of Albany, sails for Europe July 2, expecting to return before October He goes as the delegate of the Medical Society to the British Medical Association, which meets in Birmingham, Tuesday, July 29, to August 1; and as delegate to the International Medical Congress at Berlin, August 4 to 9, of which latter body the doctor has become a member.

—Dr. Henry Hun, one of the appointees of the Ninth International Medical Congress, has recovered from his recent illness, and sails for Europe in July in time for the Tenth International Congress at Berlin and the meeting of the British Medical Association.

—Dr. G J. Holmes ('82), New Britain, Conn., has just returned from the New York Polyclinic, where he taken a six weeks' course.

—Dr. Gompers, who for four years has been in charge of the Imperial Klinik for the treatment of affections of the ear at the General Hospital of Vienna, Austria, under Professor Politzer and Gruber, writes to Dr. R. F. Macfarlane, of this city, that he has resigned his position and established himself as specialist in diseases of the ear at No. 6 Operngasse, Vienna. The thousands of students and doctors who have practiced under Dr. Gompers will be glad to learn of his prosperity.

—Dr. Julius B. Munn ('44), of Van Hornesville, Herkimer county, N. Y., died May 5.

—Dr. William P. Brierly ('86), No 222 Central avenue, Albany, and Miss Catherine Holler, daughter of Jacob Holler, were married Saturday, June 14, 1890.

—Dr. R. F. Macfarlane ('88) has removed to No 91 Dove street, corner of Hamilton street, Albany.

—Dr. Edgar S. Simpkins ('90), Middleburgh, Schoharie county, N. Y.

—Dr. Frederic Crounse, Jr. ('90), Altamont, Albany county, N. Y.

—Dr. John Joseph Lyons ('90), 1104 Broadway, North Albany.

—Dr. Frank M. Hall ('90), Luzerne, Warren county, N. Y.

—Dr. Willis S. Cobb ('90), West Stockbridge, Mass.

—Dr. James Henry Lyons ('90), Amsterdam, N. Y.

—Dr. Horatio S. Ansley ('90), San Francisco, Cal.

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COMPARISON BETWEEN PERINEAL AND SUPRAPUBIC CYSTOTOMY, WITH REPORT OF CASES.*

BY A. VANDER VEER, M.D., ALBANY, N. Y.

Mr. President and Gentlemen:

When I received your kind invitation to present a paper on some surgical subject at this, your annual gathering, I felt very much in doubt as to my being able to offer that which would be instructive and give proper remuneration for the time spent in listening. Now that I am before you for this purpose, I desire to thank you for your kindness, and will endeavor to occupy the hour in such a way as may be of mutual benefit to us all.

The subject that I have selected for discussion is that of the "Comparison between Perineal and Suprapubic Cystotomy." We are all familiar with the honest work done by surgeons in centuries past as to the perineal incision of the bladder, but one who has studied the subject carefully cannot fail to have discovered that there has ever been restlessness in the minds of the operating surgeons, and discontent, as it were, as to the best method of opening the viscus through the perineum.

The lateral operation has always seemed to be the favorite; the median has many friends; the bi lateral, the medio-lateral, the medio-bi-lateral, perineal lithotripsy (Dolbeau's operation), and other methods, have all been presented with earnestness, and yet it cannot be said that any one of these operations has claimed the entire attention of the profession. The operation of reaching the bladder through the rectum has also had its earnest supporters. The suprapubic

* Prepared by invitation of the President, and read at the meeting of the Schoharie County Medical Society, at Cobleskill, June 3, 1890.

incision has had fitful periods of existence. It has had the endorsement of some of the ablest surgeons at times. It has been at times considered so simple an operation that even the patient has been known to do the operation upon himself, as illustrated in the case of Jean de Tot, of Leyden, where the stone and the knife with which he performed the operation are to be seen in the museum, the operator and patient recovering. In consequence of the high mortality following, from peritonitis and urinary infiltration, the operation has never made much headway or any great claim upon operators, until a few years since, when it was so earnestly revived by Peterson, and his method of operating has made it now, beyond a doubt, one of the simplest operations for reaching the bladder. It is another illustration of the surgeon failing to make use of his anatomical knowledge, for we ought to have known centuries ago that nature had so arranged the peritoneum that the bladder could be distended and the former lifted up sufficiently to allow incision of the latter with safety. The operation upon children has always been comparatively easy and safe because of the bladder at such a time in life being high up, almost in the abdominal cavity, and the peritoneum not in the way of the operation.

I am frank to say that in my first operations upon the bladder for the removal of calculi, foreign substances, tumors, and to relieve cystitis, I felt there was no other road than by the perineum, and I am equally frank to admit to-day that I know of no operation so brilliant as that of perineal incision by any of the methods suggested, and where close knowledge of the anatomy is of so much service in enabling one to do a very quick operation. I would say just here that, so far as time is concerned, we can reach the bladder through the perineum quicker than we can by the suprapubic method; but then, the complications associated with the perineal incision are very much greater. In the child, or in the adult, serious injury may be done to the ejaculatory ducts, and impotency result. Then, again, if perineal fistula results, it is very troublesome to heal it; also the danger of hemorrhage is at all times very grave. The rectum is not always free from possible injury, and in the old man with enlarged prostate, the danger of hemorrhage is so great that death does at times result from shock due to the sudden and severe loss of blood in incising the large veins and vessels that may be present.

Suprapubic cystotomy does not present any of these complications. The hemorrhage is exceedingly slight, shock to the system very little. The one real danger is the possi-

bility of having a contracted bladder with adhesions, in old men, which cannot be dilated, and in such cases there is danger that the peritoneum may be wounded.

The subject of drainage has received more attention in the discussions that have taken place regarding the relative merits of the two operations than any other condition. The consensus of opinion at the present time, I am inclined to believe, is in the direction that drainage can be secured quite as well by the suprapubic method, and with decidedly more comfort to the patient, than through the perineum. I have seldom listened to a paper that has afforded me more satisfaction than the one presented by Dr. Hunter McGuire, of Richmond, Va., at the meeting of the American Surgical Association, in September, 1888, on the subject of the "Formation of an Artificial Urethra in Prostatic Obstruction," which was full of original ideas. In another paper published in the *Medical News* for May 17, 1890, Dr. McGuire reports twenty-one cases of suprapubic cystotomy, with remarks, and on the subject of drainage says: "From my observation of drainage in the cases of suprapubic cystotomy in the male, I find it more complete than in drainage after sections through the perineum. In theory it may not be so, but in practice I have found it to be the case."

The pathological conditions that call for operation of the bladder may be summed up as follows:

Acute and chronic cystitis, the latter having resisted all other forms of treatment; tumors of the bladder and prostate, and these may be divided into two kinds, malignant and non-malignant. Of the tumors of the bladder the papillomatous form, non-malignant, may be looked upon as occurring most frequently, and which give the characteristic symptoms of hemorrhage from the bladder proper. Even in the malignant form of tumors of the bladder great comfort is sometimes afforded by giving the patient the benefit of a suprapubic fistula, especially in such cases where it becomes almost impossible to introduce instruments through the natural channel. Tumors of the prostate gland, especially that variety known as fibroid or myoma, the kind which often gives our patient the greatest amount of suffering from the retention of urine, producing chronic cystitis and all its allied complications. Vesical calculi, more especially associated with chronic cystitis and sacculated bladder, and where the calculi are multiple; impassible form of stricture, and especially where there have been numerous abscesses in and about the perineum, leaving many fistulous tracts through which the urine escapes, and in which it is

almost impossible to do an external perineal urethrotomy, because of the inability to get the guide in the proper channel; inflammation of the prostate with retention of urine, and where the introduction of the instrument gives great suffering. In the female, loss of the urethra following difficult deliveries, or as a complication of the operations that may have been done in the neighborhood. But by far the most frequent condition which presents is the enlarged prostate in advanced life, at a time when the comfort of the patient is to be seriously considered, when the sympathy of his family is thoroughly aroused, and when we know but too well that the use of instruments is frequently only temporary and of little permanent good. For many years I had observed in my autopsies upon old men, and in cases where retention had occurred, that the cause was frequently due to a valve-like projection of the middle lobe or isthmus of the prostate. It is in such cases that we have the inferior fundus of the bladder developing. Ammoniacal urine is retained, becoming very offensive; and, like all cases in both male and female wherever there is mechanical obstruction of the passage of the urine, it is sure to end in either cystitis, ureteritis, pyelitis or pyelo-nephrosis. It seemed to me years ago that if we had some way of reaching the bladder in these cases for the removal of hypertrophied growths that we would be doing our patient great service. On this subject Dr. Belfield, of Chicago, has given us a most admirable short paper in the *Medical Record* for March 10, 1888. Sir Henry Thompson, of London, and Mr. Harrison, of Liverpool, have written very ably upon the subject of treatment of the enlarged prostate, the former having changed his views from the perineal incision to the suprapubic, favoring the latter. Mr. Harrison still clings to the perineal route, believing that it affords greater facility for drainage.

In my early cases of the treatment of chronic cystitis, exploration of the bladder for suspected tumors, unsuspected stone, etc., I did the perineal incision a number of times, but did not get the results I always hoped for. In the case of two young men upon whom I operated for chronic cystitis, the difficulty of keeping in the drainage tube was very great, and the annoyance to the patients of constantly wetting the bed and clothing was so great that at times they became almost dicouraged before convalescence took place. Then, in doing the perineal incision through an enlarged prostate, I have found it exceedingly difficult to explore the bladder, because of my inability to get my finger thoroughly inside, and yet I believe my finger is of the fair average

length of operators. Aside from that, there is the loss of blood, which must be taken into consideration in many of the cases where the patient is not very strong. Taking it, then, all in all, I must say that when we consider the simplicity of the suprapubic operation, the little blood that is lost, the very slight danger of wounding the peritoneum, the ease with which our finger can be made to search every portion of the bladder, and in cases where there is little hemorrhage make use of the electric light and see directly the kind and nature of the tumor that we have to deal with, I am strongly impressed that the suprapubic operation is by far the best.

In children, perineal lithotomy is growing less and less, if one but watches the tone of the medical journals and the results reported in papers presented by some of our best operators. In boys, particularly, as has been stated, it may do serious harm in causing impotency and arrest of development of the sexual organs. Litholapaxy, or crushing the stone, in children, where one has but a single stone to deal with, is attracting great attention. Instruments are now made so small, and yet so effective, as to make this operation possible. At almost any age of life there are undoubtedly many cases and pathological conditions of the bladder in which the suprapubic operation will be done, but more especially in the adult.

I would not be understood as recommending the suprapubic incision in cases of enlarged prostate without every other means of treatment having been tried and exhausted. We have now at our command such excellent instruments that catheterization, in many cases, is all that is really required to make our patient comfortable; but when we see the suffering caused by the desire to urinate frequently, the broken sleep, the complications that attend continual straining, such as hemorrhoids, fissure of the anus, etc., I believe we are doing our patient great service to recommend cystotomy in some form.

The steps for the suprapubic operation are very simple. The patient's bowels should be thoroughly evacuated the day previous to the operation, and five or ten grains of quinine should be given the night before and the morning of the day of the operation. On morning of the operation the patient's bowels should be thoroughly washed out by rectal enema. If this is neglected, there may be some complications in using the rubber rectal bag. The patient the day previous to the operation should have a good, thorough bath, and clean clothing the morning of the operation; parts

should be thoroughly shaved, and a bath of bichloride (1 to 2000) made use of; thorough antiseptic precautions should be carried out in every respect. A simple scalpel, a few artery clamps, some catgut ligatures, a large curved tenaculum, with two well-curved needles properly threaded, a rubber rectal bag, a good Davidson syringe, proper urethral catheter, a piece of rubber tubing about a foot in length, and you have really all the instruments that are necessary. Patient's breakfast should consist of very light food. I prefer generally to do all my operations at about eleven A. M., if possible. I prefer ether as an anæsthetic, and when the patient is well under its influence have him placed upon a narrow table in front of a good light; an assistant is then instructed to introduce a collapsed rubber bag, Barnes' dilator, pig's bladder, or even the fingers of the assistant may be made use of in the rectum for lifting the bladder up, and the reason why it is advisable to have assistant do this is that the operator ought not to let his fingers become soiled with this step in the operation. After the rubber bag has been introduced in the rectum, I then inject from ten to twelve ounces of moderately hot water into it, which will raise the bladder considerably above the symphysis, and do no harm to the rectum. The stop cock of the rubber bag is then closed, and then the next step is to introduce a rubber or silk catheter into the bladder, wash out the same thoroughly with a solution of boric acid, a dram to a pint of hot water, leaving in the bladder from eight to ten ounces, being somewhat careful in old men not to dilate the bladder too much; removing the catheter, you fasten about the penis the short rubber tubing to retain fluid in bladder. You will then observe that the bladder has been raised above the symphysis sufficiently so that you have a space from two to three and one-half inches in which to make your incision without any fear of wounding the peritoneum. The prominence of the symphisis is to be located and to mark the lower end of the incision through the soft part. The incision can then be made in the median line, through the linea alba, beginning at a point three or three and one-half inches above the symphisis, dissecting directly down between the recti muscles; after having passed through them, you come upon the prevesical fat, a layer of adipose in which are to be observed quite a number of large vessels. What slight hemorrhage has occurred up to this time can be controlled with the simple artery clamp. This fold of adipose must be lifted up carefully by means of the finger, when the bladder generally comes in view, and is held in position with the tenaculum.

You then pass through the coats of the bladder, on each side of the tenaculum, a curved needle, entrusting each ligature to the assistant. The bladder is now incised along the tenaculum, and your finger passed rapidly in. As the flow of water escapes you will be able at once to make out the pathological condition present. If it be a simple stone, it can be removed with the forceps. It may be necessary to enlarge the incision. It may also be necessary to make a slight transverse cut of the recti muscle to enlarge the opening. Tumors connected with the coats of the bladder may be removed with the snare, with the forceps, with your finger or with the curette, and the thermo-cautery may be applied afterwards. Tumors connected with the prostate may be removed in a similar manner or they may be crushed or cut off with forceps made for such purposes. You really have every thing under your control for the time being. Benefit is then derived by lifting the hips of the patient, after the Trendelenberg method, the contents of the abdomen will fall back towards the diaphragm, and in this way the bladder is somewhat more exposed to view. After the operation has been completed, and if it be found to be a case of simple stone with no chronic cystitis, it is possible to close up the incision in the bladder at once by interrupted suture, closing up the external wound in like manner, when rapid primary union will take place in many cases. But in many cases, especially where the condition is such that we desire to establish a suprapubic fistula, then a somewhat different procedure becomes necessary. Dr. Hunter McGuire does not care to make use of any drainage tube. He leaves the wound open to a great extent and depends upon the urine being kept in an acid condition, as this condition, we well know, is aseptic; but, for cleanliness of the bed and the patient, I have felt disposed in my operations to make use of the Trendelenberg drainage tube such as I here show you. As the operation is completed the bladder is thoroughly washed out with a solution of boric acid, a dram to the pint of hot water, and the tube is then left within the bladder. Around it I close the walls of the bladder by catgut sutures cut short. The next step in the operation is the bringing together of the external incision by means of an interrupted suture, which may be of silk or catgut, as one thinks best, closing in around the drainage tube. By means of a short glass tube the drainage tube can be connected with a long piece of rubber tubing and then allowed to drop down by the side of the patient, either within or without the bed, into a bottle or dish containing an antiseptic solution, and

in this way drainage is established without disturbing the patient, in the way of wetting the bed, etc. Patient is allowed to lie upon either side or back, as may suit his comfort. Drainage tube may be removed, if it becomes painful, within a few hours after operation, or may be kept in for several days or weeks, for that matter. When the incision shows a strong disposition to fill in, a silver plug may be worn by the patient for two or three hours at a time, and then he can urinate in a distinct stream and with great comfort. This opening can be maintained for as long a time as the case seems to require. Absorbent cotton, with or without iodoform or bichloride, or iodoform gauze, may be applied about the wound to keep it in a healthy healing condition. Parts will generally heal pretty promptly.

The following cases upon which I have operated will help to illustrate suprapubic cystotomy.

CASE I.—Referred to me by his physician, Dr. Casey, of Ilion. Mr. L. H., æt. 46 years, married, native of United States, and by occupation a carpenter, entered my service for the third time, at the Albany Hospital, November 26, 1888. The clinical history is as follows: Father and mother died at an advanced age; whole family very vigorous; an uncle died of cancer; patient himself was never strong. When a youth he was thrown from a horse and sustained a rupture of the left testicle. Since the accident he has always suffered from local neuralgic pain. After continued treatment, I removed the testicle, which was atrophied, December, 1885, with complete relief. At this time he had a slight hemorrhage from the bladder, but continued in good health until the spring of 1887, when there was a return of the hæmaturia, together with vesical tenesmus and retention of urine. This condition did not improve, and he entered the hospital December 28, 1887. The urine contained pus, blood and mucus, but the kidneys seemed free from disease. The exploration of his bladder with the searcher was attended with great difficulties, and could only be accomplished under anæsthesia. An irregular mass could be made out on the left side of the bladder. January 3, 1888, I operated for removal of the growth. The incision for median lithotomy was made into the membranous urethra, the neck of the bladder dilated, and a mass the size of a small orange removed by the use of the curette and forceps. The bladder was irrigated with a borated solution, and a full-sized catheter introduced through the perineal wound for drainage; the patient recovered with usual after-treatment and returned to his home. After his discharge he continued the irrigation

of the bladder per urethram, and for a time was in a fair condition of health. However, during the summer of 1888 there were slight hemorrhages, and later his old symptoms returned. I advised that he re-enter the hospital and submit to a suprapubic cystotomy. November 30, 1888, the operation was done. The incision was somewhat embarrassing, as the abdominal walls were very fat. The digital exploration of the bladder revealed a papillomatous mass as large as an apple on the left and anterior wall of the bladder. This was removed with finger and curette. Hemorrhage was very free, but was controlled by irrigation with hot borated solution. A drainage tube was introduced and the lower portion of the wound closed. A syphon was attached to the drainage tube and carried over the side of the bed into a vessel. An attempt was made to acidulate the urine by a free administration of citric acid, thereby producing asepsis. Patient did well. Bladder was freely irrigated through the wound with comfort to the patient. His appetite was capricious and he remained in the hospital for some time. The healing of the wound was somewhat embarrassed by the deposit of phosphates around the edge, with slight suppuration. He returned to his home, although a slight cystitis remained, which was relieved by irrigation. He has kept me informed as to his condition, and is now, after eighteen months, free from his old symptoms.

CASE II.—Mr. D. S., æt. 19 years, single, native of United States, and by occupation a clerk, entered my service at the Albany Hospital April 26, 1889, by advice of his physician, Dr. Phillips, of Gloversville. Family history good; previous health good. November, 1887, patient was seized with a chill, pain in the head, back and pelvis, high fever and frequent micturition. A severe cystitis followed. The urine was ammoniacal, filled with pus and mucus, and at times clots of blood. An attempt at irrigation caused so much distress that it could not be repeated. During the latter part of 1888, patient began to have attacks of vesical spasm, requiring much morphia to afford relief. He could not assume an upright position. In this condition he was brought to the hospital. Exploration of the bladder, either by sound or cystoscope, was impossible without anæsthesia. I advised suprapubic cystotomy. The operation was done May 8, 1889. Section revealed a bladder free from stone, but with contracted and thickened walls. Mucous membrane was studded with tubercular masses, many of which had broken down into ulcers. The wound was partially closed with sutures and a soft rubber drain introduced. Spasm

compelled immediate removal of drain. Hypodermic injections of distilled water would at times relieve the pain. Bladder was washed with borated solution. His appetite improved, and he gained in strength. Sinus did not close, but when the bladder was washed through the urethra, solution and urine came from it. During December, 1889, he became worse, and died December 30, 1889. No autopsy permitted. This patient was made very much more comfortable by the operation. In another like case I would make the incision into the bladder more free, dressing the latter with iodoform solution in oil, by means of strips of gauze, and attempt to get healing of the tubercular points primarily, keeping up a fistulous opening, by means of a silver plug, as long as possible.

CASE III.—Mr. H. D. W., æt. 47 years, married, native of United States, entered my service at the Albany Hospital, by advice of Dr. Matteson, Morris, N. Y., March 7, 1889, with diagnosis of stone in bladder. Family history good. Patient had suffered for over seven years with repeated attacks of renal colic. After one of these attacks he had severe burning pain in penis, but at that time I was unable to find calculus. Had not consulted any one from the time I first sounded him with a view to operation. For last two years has suffered severely, and was compelled six months ago to give up business. His urine now contained pus, blood and mucus in great quantities. He had hemorrhages from the bladder, and lost flesh and strength. I advised suprapubic cystototomy, which was done March 9, 1889, and a single phosphatic calculus was found, weighing 530 grains. Patient left hospital with wound completely healed April 8, 1889. I saw him a year later in perfect health.

CASE IV.—Mr. R. M. F., æt. 65 years, married, native of Scotland, came to me with the following history in May, 1889: About two years ago he had passed fine sand with his urine, and suffered greatly from vesical irritability. There was pain in the glans penis, stoppage of stream and slight hæmaturia. The searcher employed at that time by the family physician, Dr. A. T. Van Vranken, failed to reveal calculus. He was treated by usual remedies, and his bladder washed out at intervals. Under this management he improved, and was in fair health until March, 1889, when all of his old symptoms returned with increased violence. The urine was ammoniacal and contained pus, blood and mucus in great quantities. There was considerable prostatic hypertrophy. The searcher revealed stone. I advised a suprapubic cystotomy and drainage. The operation was done

May 29, 1889, the usual technique being employed. I not only removed one, but five, calculi from different pockets of a sacculated bladder. A Trendelenberg drainage tube was introduced, and the wound partially closed to secure sinus from bladder, after Dr. Hunter McGuire's method. The old gentleman was comfortable after operation; his bladder was washed daily with boric acid solution, and he left the hospital June 24, 1889, with the fistula established. The sinus soon healed after leaving the hospital, and the bladder returned to its normal condition. He was at my office a few days since in perfect health.

CASE V.—Mr. R. D., æt. 58 years, married, native of Ireland, farmer by occupation, was admitted to the Albany Hospital December 26, 1889, by advice of his physician, Dr. D. M. Smith. Family history good; previous history good up to ten years ago, when he suffered from an inflammation of the bowels; habits good. Patient had been in the habit of drinking large quantities of water containing an excess of lime. He states that water used in the kitchen, which is same as he drank, leaves a thick, hard deposit in the kettle. About two years ago he noticed that he was obliged to urinate more frequently than usual—ten or twelve times during the day and seven or eight at night. Complains of pain in penis and at end of micturition passes some blood. Has had an excellent course of treatment by Dr. Smith of Cambridge. Has had to use catheter for some time. Stone found on examination, and Bigelow's operation decided upon, patient not favoring a cutting operation. This was done, and a considerable stone substance removed. December 28, 1889, in sounding this patient, I felt there was more than one stone present. However, I soon crushed what my lithotrite would grasp, washed out over two drachms, and was surprised to learn that my searcher failed to discover any more. I said to my assistants that this man had a sacculated bladder due to an enlarged prostate, and that the fragments or other calculi had escaped observation. He recovered rapidly, and was much more comfortable for a time after this operation. March 17, 1890, he returned to the hospital with a renewal of old symptoms. Suprapubic operation was decided upon. Operation March 18, done in usual manner. Four small stones removed, the largest the size of a hazelnut. The middle lobe or isthmus of the prostate gland was found enlarged and projecting like a full-sized bean. This I crushed off by means of Thompson's forceps. T drainage left in. Considerable pain followed operation. Drainage tube removed on the third day. At this time

patient developed a severe cystitis; urine very alkaline. Bladder washed out with a very weak solution of nitric acid, and phosphoric and dilute nitro-muriatic acid given internally, until reaction of urine changed, then boric acid as a wash used. In the second week he developed a severe orchitis that went on to suppuration, and later on a urethritis; abscesses were opened in several places, after which patient went on to a good recovery, with the wound entirely healed, and was discharged from the hospital May 7, 1890. Was obliged to use catheter about every three hours. This patient, I am sure, would have been much better had he allowed us to establish a suprapubic fistula, but he was so worried that it might not heal that he would not permit it.

CASE VI.—Mr. T. W. C., æt. 72 years, has suffered for eighteen months with symptoms of vesical irritation and enlarged prostate. Has been obliged to use the catheter for over a year. On examination March 13, 1890, I recognized an enlarged prostate, which had been diagnosed by his family physician, Dr. Moriarta; also by use of sound discovered a stone lying in the inferior fundus of the bladder. He had present a very decided chronic cystitis, which caused him much suffering. After careful consideration of his case, I decided best to do a suprapubic cystotomy, with a view of obtaining drainage and placing the prostate at entire rest. On April 23 I operated, removing a phosphatic stone weighing three drachms; no cysts of the bladder, but the viscus showed evidence of a very decided chronic cystitis, and the prostate was enlarged. Trendelenberg drainage tube introduced and bladder sutured around it; linea alba brought together with deep catgut sutures and superficial wound closed in same way around the tube. Drainage was perfect. The bladder was washed out daily through the urethra, by Dr. Moriarta, and up through the drainage tube. Marked change for the better was observed at once. Immediate result was absolute relief; subsequent history was the continued use of the drainage tube, which was still retained up to May 17, when I advised the family physician to remove it. He is now wearing the silver plug; can retain urine for two or three hours, and then passes it in a distinct stream through fistulous tract.

In all these cases of enlarged prostate the gland becomes, as it were, water soaked, and by giving it entire rest, not using urethra for any purpose, it is drained, as it were, and the retrograde atrophy begins, which goes on to patient's complete restoration to health.

CASE VII.—Mr. C. G., æt. 75 years, married, native of United States, farmer by occupation, admitted to Albany Hospital May 9, 1890. Family history good. Patient has always enjoyed good health, except for a dyspepsia that he has had for some time. Habits good. Present trouble began about ten years ago. Before that time he had been living in Madison county, and drank considerable very hard water. He states that he often noticed a hard, chalky deposit lining the cooking utensils. His first symptoms were periodic attacks of renal colic, very severe and lasting at times for two or three days. These attacks seemed to follow any unusual exertion. About two years ago, while lifting a heavy trunk, he noticed a sudden sharp pain in the region of the bladder. This pain has never left him. Since that day he has complained of frequent micturition, with pain following; pain at end of penis and along perineum. Patient has greatest ease while lying on his side in making water. Gives no history of kidney complications. On examination, found prostate very much enlarged. Stone suspected and found without trouble. After suprapubic operation, May 19, patient progressed without any unpleasant complications whatever, was comfortable and not at all distressed in any way. Bowels moved on third day, and continued to do so every other day. Temperature at times reached 101.5°. He was unable to take much in the form of nourishment, and on the morning of May 23 he began to show symptoms of great exhaustion. While every effort was made to restore him, he continued to grow weaker, and died May 24, 1890.

Autopsy six hours after death. Body emaciated; rigor mortis well marked; abdomen distended; incision gaping; stitches not found; evidence of suppuration about wound; a good-sized abscess in lower angle. Abdomen opened in usual manner; intestines protruded forward when incision was made; thorax not examined; stomach not opened; liver and spleen normal; kidneys surgical, the left enlarged and right contracted to size of small butternut. Ureter on left side normal, but on right side enlarged. Mesentery normal. Evidence of localized peritonitis about wound. Bladder ulcerated, congested and very much contracted. Prostate size of small orange. Seminal vesicles filled with a calcareous deposit.

I am of the impression that a double drainage tube arranged so as to wash out from the incision, having one tube a little longer than the other, and to give the prostate entire rest, would be a wise thing in these cases. There is

great œdema of the glands in all of these cases, and prolonged rest is of great service in this direction. It is possible that a speculum may yet be invented that may be of service in examining the bladder through the suprapubic incision, but properly constructed retractors will probably render the most good.

Dr. John O. S. Davis, of Birmingham, Ala., has written a very excellent article on the subject of suprapubic puncture, read at the fortieth annual meeting of the American Medical Association, June, 1889, and reprinted from the *Journal of the American Medical Association*, February 8, 1890, in which he recommends the use of a large trocar through which a drainage tube can be introduced, drainage at this point being of great value.

ABSTRACTA.

A Study of the Literature of Gunshot Wounds for the year is confined to wounds received in civil life, and reported, either separately or in small groups, by a large number of surgeons. Naturally, a large proportion of the cases reported terminate successfully, and reflect great credit to surgery or to the endurance of the patient. It is equally natural that a large number of gunshot wounds in civil life are not reported at all, for who of us are especially fond of reporting a series of failures? It is a question whether any views formulated of our experience in civil life will largely influence the future of military surgery. There are many reasons why such views should not influence military surgery.

First, the nature of the weapons employed. Most wounds of civil life are inflicted by weapons of small or medium calibre—chiefly by revolvers of defective workmanship. Such weapons are sold in the United States for from one to three dollars, and are easily accessible to all. From imperfect cylinders, with defective grooving and "choked" bore, the accuracy in execution and the initial velocity of projectiles are very greatly modified. On the other hand, military rifles and revolvers are of large calibre and perfect workmanship. At the present time ordnance commissions are adopting rifles of smaller calibre than have been used heretofore in war; but the projectiles, although smaller, are made of hard lead and composition, or receive a steel mantle. They have a greater initial velocity, are less likely to be deformed by the tissues, and have greater power of direct penetration. The influence of the new smokeless powder as an explosive will require study.

Again, the environments of the civil and military surgeon differ very greatly. In large cities the man finds himself comfortably placed in a hospital, with a surgeon ready to act within an hour from the time he received his wound. On the field it may be several hours before he receives any attention; then passes through the hands of the assistant surgeon and ambulance corps to the division hospital, where he may have to wait for more urgent cases. Are division hospitals in the rear of any army equipped for the successful performance of laparotomy in gunshot wounds of the abdomen, excisions of the knee, and trephining for projectiles in the brain? Laparotomy, at least, needs to be done in the division hospital, if done at all; for, if the patient be removed to the general hospital, so much valuable time has been lost that the operation had best not be undertaken.

Again, the careful employment of antiseptics, which takes time, will require a greater number of operating surgeons in the division hospitals and necessitate the carrying of a large amount of medical stores.

In fact, to carry out the views of the civil surgeon, the ambulance and medical corps, in this country at least, would have to be reorganized. We have no doubt but that, in the event of a great war, from the demands of modern civil surgery, the medical service will be greatly modified. We should expect to see every soldier supplied with a compact antiseptic occlusion dressing, and that he should be instructed in its use in case of wounds. Further, there would, without doubt, be a wider application of fixative dressing in gunshot fractures, and the expectant plan, with antiseptic dressing, would be more carefully followed in wounds involving the joints.—*Albert Vander Veer, M.D., Ph.D., and W. G. Macdonald, M.D., in Annual of the Universal Medical Sciences.*

Headaches.—The treatment of headaches of young children brings us into an almost special line of cases. In the city of New York, at least, these headaches are best treated, as a rule, by giving small doses of the iodide of iron, or of the citrate of iron and quinine. In school-children, headaches have often to be treated by removal from school, the use of tonics, change of diet, and the application of glasses suitable to any eye-defects that may be present But glasses should be the last thing tried, unless the visual trouble is very marked. In some children, arsenic acts well.

Headaches among brain-workers require, as a rule, a different class of remedies from those among muscle-workers. In the former class, nervines, like antipyrin, caffein, and the bromides, act well; while attention to diet, exercise, and the eyes is especially required. Among the laboring classes, especially women, anæmia, malaria, syphilis, and rheumatic influences must often be attended to. Among the best of symptomatic remedies is muriate of

ammonium in large doses, ½ to 1 drachm, given in wafers. In the headache of neurasthenia, menthol, 5 grains in hot water, gives relief, or a combination of menthol, 5 to 10 grains, and antifebrin in 5 to 10 grains. Phenacetin is also a good remedy. A practical point of importance in the use of antipyrin is the dosage. Often the best results are obtained by small doses frequently repeated. The much-advertised effervescent preparations for headache contain too small a dose of caffein or of bromide to be of the best service. Of local applications, a spray or lotion of aconita, sheet lint soaked in 20-per-cent. solution of menthol and wrapped on the head, solutions of cyanide of potash after the method of Trousseau, and Rithet's tobacco and quinine snuff, are some of the measures indicated.

Every one meets now and then with cases of headache of obscure origin, obstinate in character, and intractable to every kind of treatment. The use of iodide of potassium and of the strong galvanic current and static electricity has been of service to Dana in some such cases.—*Dr. Henry Hun, in Annual of Universal Medical Sciences.*

Christian Science, in essence, is nothing new, but, hoary with age, now appears with a new name and new garb; that is all. It is to be considered as on a par with Perkins' "tractors," the water of Lourdes, the cement of Knock, Long's liniment, the "weapon ointment" and "sympathetic powder," the king's "touch," faith, and all the numberless mysterious forms of healing which have been known since the foundation of the world. These all have had and still have believers thoroughly convinced of their reality and power, and all have had cures as numerous and miraculous as those presented by Christian Science. They all have had about the same successes and the same failures. None of them has satisfactorily authenticated cures of fractured bones, for example, or the specific fevers—measles, scarlet fever, small-pox, and so on—though all of these may have been recovered from under any or no form of treatment. Intelligent laymen, as well as physicians, know that most diseases have an inherent tendency to recover of themselves, perhaps nine-tenths or nineteen twentieths needing no medical assistance whatever, and in such cases the physician who does least harm does most good. No honest physician pretends to *cure* them, although he may assist nature in her effort to cure.

Many of our diseases are comparable to our prejudices; they come without reason, continue without reason, and neither reason alone nor medicine will dislodge them, but Christian Science may, the water of Lourdes, the faith-cure or any sufficiently strong mental influence. Our diseases, moreover, are sometimes our only occupation, and we are therefore not disposed to give them up. Many confirmed invalids, under confirmed medical treatment, are such only because their mental constitution, and

its effect on the body, is not understood by the friends or physician, and what might easily be cured by proper means is thus suffered to go on for years under a total misapprehension. It is these cases principally which furnish to Christian Science and mind healers their most astonishing cures. Hysteria may simulate almost every form of disease—spine and joint affections, paralysis, blindness, deafness, fits, loss of feeling, shortening of limbs, dyspepsia, etc.—any one of which may therefore be cured instantaneously by any strong mental impression, as shock, fright, expectation, the command to "rise and walk," or the delirium of Christian Science.

Mental pain—as anxiety, disappointment, annoyance, dissatisfaction—has the same effect on the body as physical pain, and may therefore impair the appetite, digestion, nutrition, cause loss of sleep, emaciation and exhaustion. It is plain that if there be any weak point in the system it may now give way, be it the heart, lungs, stomach, bowels, liver, brain, or other part. What are the indications in such a case? To treat the particular organ affected—the weak part which has first failed—or the underlying low physical state and its antecedent low mental state? Of course the latter. Any thing which now properly diverts the mind from the bodily disorder, and particularly from its mental cause, will cure. Too often a symptom or set of symptoms coming on frighten and subdue the patient at once, instead of exciting in him a manly resistance. It is a well-known fact that many symptoms and sometimes severe disorders may be bluffed off, snubbed, as it were, till they take their departure. A little of the Spartan training would do most of us good. Let us learn to live simply and lie hard, fortify ourselves, and render the system invulnerable by the careful observance of the laws of health, rather than foster the spirit of dependence which renders us so helpless and vulnerable. Resources we must have within us. Let the will be in command and the nervous system under control. When the mind is preoccupied with useful thoughts and the body with useful actions, there is little room or leisure left for harmful introspection and attention to different organs, which do their work best when least observed.—*Extracts from a paper read before the Albany Institute by Selwyn A. Russell, M.D.*

Milk Sterilization.—Ordinary milk, like other foods, is, in general, safest when cooked. While for common city milk an hour s steaming is often insufficient for complete sterilization, yet by keeping the milk for twenty minutes at the temperature of boiling water, we destroy almost all of the micro-organisms that may be present, and eliminate the element of danger from any of the recognized disease-producing germs (including the bacillus tuberculosis) that may be present. We should, therefore, direct that a doubtful milk be boiled for at least thirty minutes, as careless people may lose time in raising the milk to the desired tem-

perature. For a common city milk it is well to set an hour as the time for which it should be steamed, and after this cooking the milk should be kept cool until used; if then any spores remain alive, their increase is at most very slow.

The bottles in which the milk is to be sterilized must be clean, and must have been sterilized by steam or hot water. Dry heat used for this purpose must be of a high degree and prolonged.

The bottles out of which milk is fed to babies should also be kept rigorously clean, and after the nipple arrangement is cleaned it can lie in a saturated solution of boric acid.—*Currier, N. Y. Med. Jour.*

Buttermilk is an article which has been taken up as a hobby by many persons. Ward (*Ther. Gaz.*) speaks of its use in albuminuria approvingly. This is not new, as Mitchell long since recommended it as a means of varying the monotony of the skim-milk diet. Buttermilk contains lactose, and is more strongly diuretic than sweet milk. There is much difference in fresh buttermilk and that which is a few days old. The latter changes in its taste and becomes purgative. Ward speaks also of its use in sick stomach, infantile dyspepsia, vomiting of peritonitis (where, however, he prefers koumiss) and of pregnancy. It should be given cold and in very small quantities. In cholera infantum but a few drops should be administered at one time.—*Times and Register.*

A Milk Farm has been undertaken by a nurse in the pine region of New Hampshire, not merely to give the usual glass canned supply for exacting customers, but to furnish sterilized milk. The herd has a physician. The milk is sterilized and hermetically sealed in six-ounce bottles, which is a sufficient quantity for a child to take at one feeding. The heat of the water-bath, which is used to destroy any possible disease or fermentation-germs in the milk, is applied as soon as possible after the milk is drawn from the cow.—*Trained Nurse.*

Treatment of Diarrhœa in Early Life.—Chapin (*Med. Record*) recommends sterilizing milk by means of the Arnold steam cooker, in preference to Soxhlet's apparatus. Boiling for one and one-half hours is essential, after which the milk will keep sweet for several weeks. Sterilization makes the casein coagulate in smaller clots, while the fat collects in larger globules. The milk may be attenuated by the addition of flour-ball. At times the milk in any form disagrees and must be stopped. He then gives expressed beef blood, white of egg or cold barley water. Lavage is very serviceable in some cases, but by no means of general utility. The intestinal glands, if mildly stimulated, will accomplish the washing out in most cases. Small doses of calomel accomplish this object. Sometimes the lower

bowel requires irrigation with starch-water and bismuth. He also gives bismuth and pepsin internally, alcohol as needed, and a little opium if the case threatens to become chronic. In all cases careful restriction of diet, but a free allowance of water. He expresses the dubious opinion regarding intestinal antiseptics usual in those who have not employed the sulpho-carbolates.—*Times and Register.*

Uses of Coffee.—It is asserted by men of high professional ability that when the system needs a stimulant, nothing equals a cup of fresh coffee. Those who desire to rescue the drunkard from his cups will find no better substitute for spirits than strong new-made coffee, without milk or sugar. Two ounces of coffee to one pint of boiling water makes a first-class beverage, but the water must be boiling, not merely hot. Bitterness comes from boiling too long. If the coffee required for breakfast be put in a granitized kettle overnight, and a pint of cold water be poured over it, it can be heated to just the boiling point, and then set back to prevent further ebullition, when it will be found that while the strength is extracted, its delicate aroma is preserved. As our country consumes nearly ten pounds of coffee per capita, it is a pity not to have it made in the best manner. It is asserted by those who have tried it that malaria and epidemics are avoided by those who drink a cup of hot coffee before venturing into the morning air. Burned on hot coals, it is a disinfectant for a sick-room. By some of our best physicians it is considered a specific in typhoid fever.—*The Epicure.*

Charcoal Filters.—Dr. Frankland's numerous and exhaustive experiments on the powers of filtering materials, both for chemical and biological purification of water, constitute, perhaps, the most valuable mass of data in existence for our guidance in the choice of such materials. As we have often pointed out, his testimony, like that of every other experimenter, is to the effect that all the leading materials, such as sand, coke, charcoal, spongy iron, etc., were temporarily effectual, but, for want of cleansing, soon became useless, or even worse than useless. Regarding organisms, he says: "Green sand, coke, animal charcoal and spongy iron, were at first successful in removing all organisms from the water passing through them, but after one month's continuous action this power was in every case lost. The improvement still effected, however, by spongy iron and coke was very great indeed, while the green sand and brick-dust were much less efficient, *and the number of organisms in the water that had been filtered through charcoal was greater than in the unfiltered water.*" This last result comes sooner or later in all filters not constantly and thoroughly cleansed; but it is peculiarly fatal to the use of charcoal, because there is no practicable way to cleanse it at all.—*Sanitary Era.*

Surgical Wonders.—At the Surgical Congress at Berlin, Professor Gluck, of Berlin, gave an exhibition showing the successful substitution of catgut, ivory, and bone freed from chalk, for defects in bones, muscles, and nerve sinews. The juices of the body are sucked up in the inserted material, thereby establishing the junction of the separated ends, without any shortening of the part. He presented the cases of patients in whom there had been an insertion of from six to ten centimeters of catgut to supply defects in the leaders of the hands, to which complete mobility had been restored. In the case of another patient Professor Gluck removed a tumor from the thigh, causing a considerable defect in the bone. He inserted ivory and no shortening ensued. In another case he removed a large piece of nerve in the groin and inserted catgut, and the functions remained completely satisfactory.

Removal of the Liver.—At the late German Surgical Congress, Professor Ponfick, of Breslau, read a paper on the surgery of the liver, and showed the possibility of removing large portions of it. From experiments which had been made on rabbits it was found that the removal of the fourth part of the liver caused only a slight detioration in the general condition. The removal of the half caused a much more serious deterioration, which, however, passed off in a few days. Even the removal of three-quarters was borne, though with very severe prostration at first. A considerable number of the animals survived this last operation, and recovered entirely. The excision of more than three quarters of the liver did not succeed. It was found, further, that the liver had an astonishing power of repairing lost tissue. Within a few days the mutilated organ grew to more than its original size, a fact which strangely recalls the ancient legend of Prometheus.—*Sanitary Era.*

Treatment of Phthisis by Carbonic Acid.—It is said that lime-burners enjoy a certain degree of immunity from phthisis, not because they take in more carbonic acid, but because its diffusion when expired is impeded. Again the course of phthisis is often seen to be arrested in pregnancy, and this has been ascribed to the increased amount of CO_2 in the maternal blood. Chronic heart disease, by causing chronic hyperæmia of the lungs, also affords a kind of immunity against phthisis; lastly, in emphysema there is also permanent dyspnœa in more or less degree, and the blood is overcharged with CO_2. Acting on these ideas, Dr. Hugo Weber (St. Johann-Saarbrücken) proposes to administer CO_2 by the stomach, in the form of effervescing powders. Ten cases are reported in which decided improvement was noted after this treatment, which certainly merits further trial, especially as it can be carried out at patients' own homes. According to Ebstein's theory of diabetes, the increased proneness to phthi-

sis which that disease entails is due to the defective development of CO_2, this being not only the final product of tissue oxidation, but a body which exerts a regulatory restraining influence on the destruction of glycogen and albuminoids. Bergeon, Dujardin-Beaumetz and others have used in phthisis gaseous injections per rectum of hydrofluoric acid, copiously diluted with CO_2, and the good results they met with are claimed by Dr. H. Weber as due to the dilutent.—*Berliner klin. Wochenschrift, No. 35, 1889.*

Potassii Nitras in Intermittent Fever.—I have treated more than two hundred cases of chronic chills of malarial origin, from a few months' to years' standing; many complicated with enlargement of the liver and spleen, dropsy, jaundice, etc., all more or less emaciated and anæmic. Nearly every case was cured with a single dose of potassii nitras. From two to fifteen grains of the salt, according to age, dissolved in a half ounce of water, administered just prior to the chill or during its continuance, did not only abort or arrest the chill, but effectually prevented its occurrence. In order to test the value of the remedy, I employed no subsequent treatment, but left the restoration to health (which was in nearly every instance rapid and satisfactory) to the *vis medicatrix naturæ.—J. D. Hunter, New Orleans; North Carolina Medical Journal.*

Erysipelas Treated by Warm Water.—Rose (*Ther. Gaz.*) describes a case in which this method was employed. The patient had erysipelas of the hand and fore-arm, with incipient gangrene of the fingers from tension. The arm was placed in a warm bath as far as the erysipelas extended. On the next day the fever and pain had subsided, the appetite returned, and the erysipelas practically gone. The author adds: "The warm bath relieves pain most wonderfully. I cannot understand why so many means and methods of treatment are recommended against burns and the effects of freezing, while in the warm bath we possess the very ideal means against these troubles of whatever degree and extent."—*Times and Register.*

Aristol in Psoriasis.—Dr. C. Scherrin, of Berlin, has successfully treated ten cases of psoriasis with aristol, employing it in a ten per cent. ointment with lanoline or vaseline, or in a paste with zinc oxide and starch. Under these applications the patches rapidly disappeared, without the irritant effects frequently observed from the use of chrysophanic and porogallic acids.—*Berlin. Klin. Wochenschr.*

Dandruff.—Chloral hydrate, five grains to the ounce of water, will clear the hair of dandruff, and prevent its falling out from that cause. In many instances, where the patient is nearly bald, it will restore the hair. Arnica oil, well rubbed into the scalp three or four times a week, promotes the growth of hair.

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BOOK NOTICES.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. Edited by Charles E. Sajous, M.D., Philadelphia, and seventy associate editors, assisted by over two hundred corresponding editors. Illustrated with Chromo-Lithographs, Engravings and Maps. Five octavo volumes. F. A. Davis, Publisher, Philadelphia, New York, Chicago, Atlanta and London. Agencies: Sydney, N. S. W.; Cape Town, South Africa.

This vast work, yet condensed and convenient withal, deserves to rank among the improvements of modern times. The cosmopolitan nature of the publication tends to unite the profession around the whole world in a common interest.

Albanians are not only satisfied but proud of their representation in the board of Associate Editors by Dr. Henry Hun, in Vol. II., and by Drs. Albert Vander Veer and W. G. Macdonald, in Vol. III.

Dr. Henry Hun's contribution in the department of Peripheral Nervous Diseases, Muscular Dystrophies, and General Neuroses, occupies seventy pages, and is illustrated with two full-length chromo-lithograph figures showing Acromegaly, and a figure indicating Etiological Headache Spots. A large number of pathological conditions he reviews under the following fifteen heads: Injuries to Nerves, including Operations on Nerves, and referring to Dr. Vander Veer's interesting clinical lecture published in the *American Journal of the Medical Sciences*, December 21, 1889, in which he describes in detail the methods of uniting cut nerves; Neuritis; Multiple Neu-

ritis; Beriberi; Muscular Dystrophies; Facial Hemiatrophy; Acromegaly; Neuralgia; Cephalagia and Migraine; Raynaud's Disease, and other Vaso-Motor Disturbances; Spasmodic Disorders—Infantile Convulsions; Tetany; Chorea; Tonic and Clonic Spasm; Neurasthenia.

The article on Gunshot, Penetrating and Poisoned Wounds, by Drs. Vander Veer and Macdonald, includes Gunshot Wounds of Head and Neck; Gunshot Wounds of Thorax; Abdominal Wounds; Gunshot Wounds of the Extremities; and Poisoned Wounds. A page from Dr. Vander Veer's article and a small fragment of Dr. Hun's is copied among our "Abstracta" in this number.

A cursory examination shows that use has been made of the ALBANY MEDICAL ANNALS; for example, in Vol. II., Dr. Keegan's Transfusion of Blood and Dr. Classen's paper on Maternal Impressions; in Vol. III., Dr. Fleischman's Abscess of the Tongue; in Vol. IV., Dr. Culver's discussion of "Pink-Eye."

We make the suggestion that if the "Reference List of Journals" should be arranged alphabetically, and if the place of publication should be appended after each title, the list would be more useful.

REPORT OF WILLIS G. TUCKER, M.D., PH.D., ANALYST OF DRUGS. Extract from Tenth Annual Report of State Board of Health of New York.

Five hundred and thirty-two samples of 23 drugs were purchased in different parts of the state. In the Summary of Results these are classed as follows: Good quality, 233, or 43.8 per cent.; fair, 54, or 10.2 per cent.; inferior, 130, or 24.4 per cent.; not as called for, 33, or 6.2 per cent.; excessive strength, 24, or 4.5 per cent.; fictitious 58, or 10.9 per cent The articles "not as called for" and "fictitious" are chiefly common safflower sold for real saffron, and cream tartar substitutes.

The report on cottonseed oil, and food products containing it as a component, speaks of it as "palatable, really digestible, and a wholesome, nutritious article."

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK FOR THE YEAR 1890. Published by the Society. Dornan, Printer, Philadelphia. 490 pages, octavo, cloth, $1.50, postpaid; to county societies, $1.25, and the same to members of the State Society. Address Dr. C. H. Porter, Treasurer, Albany, for copies.

President Lewis and Secretary Curtis are to be congratulated upon the prompt appearance of this creditable and unusually well illustrated volume.

The forty contributions, all by prominent physicians, are arranged by topics, including various branches of surgery, ophthalmology, general diseases, gynecology, dermatology, rhinology, and laryngology.

Among the biographical sketches are those of Dr. Thomas Helme and Dr. W. H. Craig, both of our Albany county society.

The county society lists are revised.

This volume also contains the new By-Laws of the State Society, adopted last February, and the full text of the legislation of the State of New York on topics mentioned in the June number of the ALBANY MEDICAL ANNALS.

PRACTICAL SANITARY AND ECONOMICAL COOKING Adapted to Persons of Moderate and Small Means. By Mrs. Mary Hinman Abel. Lomb Prize Essay. Published by American Public Health Association, Irving A Watson, M.D., Secretary, Concord, N. H. English text, 190 pages, bound in cloth, single copy, 40 cents; three copies, $1.00; ten copies, $3.00; bound in paper, 35 cents, 85 cents, $2.50. English-German text, cloth, single copy, 60 cents; three copies, $1.00; paper, 55 cents, 90 cents.

This essay received the first prize ($500) among seventy competitors, and the unanimous opinion of the able judges of award, and testimonials from members of the American Public Health Association prove that it is a work of great practical value, and an aid in securing health, comfort and happiness, especially to those who, without much experience in domestic duties, enter married life.

PERSONAL.

—MARRIED.—Tuesday morning, July 1, at the residence of the bride's mother, Mrs. Franklin Elmore, Peru, N. Y., by the Rev. A. O. Spoor, Dr. Edgar Wadsworth Morehouse ('84), of Peru, and Mrs. Agnes Elmore, of Troy, N. Y.

—Dr. and Mrs. Edgar Wadsworth Morehouse sailed on the "Friesland" July 2. The doctor will continue his medical studies in Vienna and London. They expect to be absent one year.

—Dr. George F. A. Spencer ('81) has removed from Barre, Mass., to Ware, Mass.

—Dr. F. V. Brownell ('82) has moved from Fort Plain to 28 Jay street, Schenectady, N. Y.

ALBANY

MEDICAL ANNALS.

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A METHOD IN THERAPEUTICS.*

BY WILLIAM C. WOOD, M.D., GLOVERSVILLE, N. Y.
(*A. M. C.*, '80.)

Disease may be defined as a deviation from the standard of health in any of the functions or component materials of the body. Whatever is capable, therefore, of damaging the structure of any organ or tissue, or interfering with its functions, may be a cause of disease. In many cases, germs are discovered existing in the blood or tissues, which, because they are not discoverable in health and are found only in the disease in question, are assumed to be the cause. In others, the germs of which we have not yet succeeded in isolating, their method of propagation by contagion, or by existing as epidemics, proves beyond a doubt that germ entrance and growth in the system is the determining cause. Chemical poisons received from without or generated within the body may also give rise to disease. Of this class are the curious alkaloidal substances known as ptomaïnes.

The failure to perform its function by one organ may, by disturbing the processes of assimilation and elimination, set up disease in another, as when the heart suffers during Bright's disease, or convulsions result from reflex irritation. So, too, physical causes, as heat, cold, dampness, or sudden change of climate and surroundings, or diet, are productive of departures from the normal. But whether arising from germs received from without, or chemical changes occurring within, or because of physical influences exerted externally or internally, it follows that disease is the result of irritation, and its cause, of whatever special nature, is in general an irritant.

* Vice-President's Address, read at the semi-annual meeting of the Medical Society of the County of Fulton, Thursday, June 12, 1890.

The majority of irritants are special—that is, their presence in the system affects some particular organ or tissue in a manner peculiar to themselves, the disturbance of the system at large being coincident or secondary. Thus, we speak of scarlet fever, whose special influence is exerted upon the skin and throat, and, in addition, gives rise to fever; measles, affecting like tissues, but in a different way; typhoid, which attacks particularly the glands of the intestines, or rheumatism, which affects the joints. Other irritants are general, and the organ or tissues which suffer do so because of their power of resistance being relatively weakened; exposure to cold causing in one person a diarrhœa and in another coryza.

The nervous system, sensory, functional and trophic, presides over and controls functional activity and tissue formation. Through its influence the equilibrium of the organism is maintained and through it only can be affected. Excited by the presence or attack of an irritant, it causes an increase of functional activity and excitement, or, being overcome, depresses or suspends; the disturbances often continuing long after the cause, or causes, have disappeared.

When a disease-exciting element enters the circulation and makes its attack, it is met by efforts at resistance. Perversion of function immediately occurs in obedience to the law of least resistances, and functional activity tending towards its elimination ensues.

As this disturbance of the economy cannot fail to cause tissue destruction or faulty construction, the trophic nerves are also engaged in perverted attempts at repair. It is the vital force of the body that resists the irritant, causes its elimination, and sets in motion the processes of repair. This vital force, varying in different persons, and at different times in the same person, constitutes the unknown quantity in the equation of disease. And, because of this unknown quantity, medicine must forever remain an art, and cannot become a science. The physician can follow no set rule of action or therapeutics. It is the skill and judgment of the artist which he is called upon to display, now urging, now restraining; in one case seeking to stimulate functional activity, in another to depress, in a third to paralyze the activity of a sensory nerve, and again to furnish the raw material that nature, in her laboratory, may use to reconstruct the ruins wrought by disease.

The physician cannot cure disease. His function is to place and keep the patient, so nearly as possible, in the circumstances most favorable for nature to effect the cure, and that is all.

Diagnosis, therefore, comes first, next hygiene. The surroundings of the patient must be such as to lessen any accession of irritation, and to prevent any interference with nature's efforts to effect the cure.

Diet, as one of the most important weapons of the physician, must be carefully attended to, and instead of, as at present, playing a somewhat secondary part, must be made a leading measure. For, given proper hygienic surroundings and proper food, ninety-five patients out of one hundred will recover without the use of any drugs whatever. Diet is secondary to no other remedial agent, unless, indeed, it be the relief of pain by opium.

In acute diseases, however, where the system is overwhelmed by the irritant, or the tumult excited by its presence is productive of great functional derangement, pain and danger; in chronic cases where its irritability is exhausted or it has become accustomed to the perversion of function and makes no effort to set itself right, the physician may make use of the action of drugs to stimulate, repress or guide functional activity, or may aid in reconstruction of tissue, by giving such substances as are normal constituents of the organ or tissue affected, and thus materially aid the vital forces in throwing off the disease and returning to the condition of health.

The administration of drugs which are not naturally present in the organism, or excessive doses of those that are, is the introduction of a foreign body into the system, which, if the normal processes are to be continued, must be gotten rid of. It is an irritant. To this extent, drugs resemble disease-germs. They cause a departure from the normal condition of health, which is termed their physiological action. They must be eliminated from or appropriated by the system. They irritate in varying degrees the sensory, trophic and functional nerves. They, like disease, may irritate to the extent of stopping the central functions and producing death.

Like the causes of disease, they act both quantitatively and qualitatively, the kind of action depending upon the drug selected, the amount of action upon the dose. But while thus analogous to disease-action, there is this important difference between the behavior of drug-atoms and many disease-germs. The former do not reproduce themselves in and at the expense of the system, nor do they pass from one organization to another. That is, the disease produced by drug-atoms is controllable both in kind and severity. We may, therefore, make use of the functional disturbances

produced by drugs to oppose or control those arising from disease. We may soothe, excite or feed to such an extent as will counterbalance the deviation that exists, and in properly and skillfully doing so, lies the art of our profession. It is *art* and not law. For, in view of the fact that the unknown quantities can never be formulated and must always be estimated, no law can be deduced nor can law be nearer approached than in the laying down of a few general rules, departure from which may (paradoxical as it may seem) be the rule and not the exception.

Holding, as I do, that all drugs are irritants, and therefore produce artificial disease within the system, I am compelled to demand the most thorough study of the action of drug-atoms upon the healthy system. What tissue does a given drug affect? What is the manner of that affection? How does it disturb functions and what are the sensations it produces in the healthy? Knowing first my disease and secondly my drug-effect, I am prepared to pit one against the other, always remembering that it is not the disease *per se* which I attack, but the perversions caused by it.

As in general all drugs are irritants, so in general they may be classified under three heads:

Anodynes, which in a greater or less degree paralyze or suspend function, varying from the mild effect of bromide of potassium to the profounder ones of opium.

Alteratives, which increase functional activity and hasten eliminative change or reconstructive action.

Tissue foods—those drugs which, being normal constituents of the tissues, are capable of being immediately appropriated by them and becoming a part of the living organism. These, however, administered in excess of tissue requirements will act as irritants. In practice, however, we find that many drugs possess properties which may cause them to partake of the characteristics of the first two of these divisions or of the last two, variations in dose giving us the effect we seek.

Supposing, for instance, we are called upon to treat a boil. Here we have, as the first symptom, irritation. A little point no bigger than a pin-head appears on the skin, that itches and burns, causing the patient to rub it once in a while. Shortly, however, the feeling of irritation increases until it amounts to actual pain. The affected portion is then more carefully examined. What is found? The four signs of inflammation—pain, redness, heat and swelling; the first two the result of irritation of the sensory and functional nerve, the latter of the functional and trophic. The blood-supply to

the part is increased; transudation takes place through the walls of the blood-vessels; the white blood-corpuscles escape into the tissues, which soon break down, and in the formation of pus actual loss of substance occurs, until at last, the irritant being removed, tissues are repaired and health regained. It may be that the irritation was but temporary and that the extent to which the disease proceeded was due to a lack of the proper tissue constituents in the body. What is the proper treatment? First, the relief of pain; for, pain being one of the great evils from which humanity suffers and the symptom which determines the patient to seek medical aid, is properly the one toward the relief of which he should first direct his attention. We must relieve pain, therefore, unless the gravest of reasons forbid, and we owe it to our patients as well as to ourselves to explain clearly why we refrain from so doing. It may happen that it is better to bear the pain than that by drug-action sensory nerves should be paralyzed. The disturbance following the use of opium, for instance, is in some persons an almost insuperable objection to its use.

Inflammation does not occur without a rise of bodily temperature. This, when due to irritation simply, may be met and controlled by nerve-paralyzers, like aconite; but, when actual organic change has taken place, remedies more profound in their effect are required. Quinine, which prevents the migration of the leucocytes, and thus the rapidity of tissue change, will lessen the fever, and is therefore the proper irritant. Disturbances of the digestive organs must be corrected, as well as the eliminative functions of the skin and kidneys, by the use of remedies which excite their action. But boils cannot occur in tissues unless their power of resistance is lowered by a lack of properly assimilable or assimilated tissue constituents, such as lime and sulphur. These, as tissue foods, should be supplied to make up the deficiency or excite the activity of the trophic nerves.

As I said before, the administration of a tissue salt acts as a food to its proper organ, yet when given in excess it becomes an irritant, and must be eliminated through the tissue it should feed. Knowing this, we may take advantage of the difference in action and, by playing upon dose, assist nature to hasten or prevent the inflammatory process. Thus, when we first attempt the treatment of our boil, we may hope to abort it by giving, in small doses, the lime and sulphur lacking. For convenience they may be given in combination as calcium sulphate or sulphide. In the above we have a perfect picture of treatment according to the doctrine of irritants.

To lessen pain and fever, we have administered the nerve paralyzers aconite and opium. To restrain the excited functional activity of the white blood-corpuscles of the blood, we have engaged their attention by quinine. And, in order to hasten repair and increase resistance, we have fed the tissues with their normal constituents, lime and sulphur. If, however, this fails and the boil proceeds to suppuration, we pursue a different course. We now desire to prevent the extension of the inflammation to healthy tissue and at the same time to hasten the destruction and elimination of tissue that has become a foreign body and of itself an irritant. That which we cannot save we wish to destroy. Quinine still, to prevent the extension of the inflammatory process. The aconite has long ceased to be of service, and the opium should be used sparingly, if at all. We no longer care to restrain ; we wish to excite. Larger doses of the calcium salt, acting in excess as an irritant to the tissues, increases and hastens their destruction, and aids in bringing the boil "to a head."

Does not this explain the action of calcium sulphide and its different behavior in different cases? In one case a dose of $\frac{1}{100}$ of a grain prevents suppuration and $\frac{1}{10}$ grain doses seem to hasten it. In others, $\frac{1}{10}$ grain doses prevent, and in still others even larger doses aid in aborting the boil. That is, the requirements of the tissues vary, $\frac{1}{100}$ being in one case sufficient to supply the lack and stimulate the reparative functions, while $\frac{1}{10}$ was an excess; in another, $\frac{1}{10}$ or even ½ grain was none too much, and, therefore, acting as a tissue food, was incapable of becoming a destructive irritant.

From a consideration of the above, I arrive at the conclusion that there are three general rules to be observed in the treatment of disease:

First. Relieve pain. This may be accomplished by the administration of the paralyzers of nerve function. In so doing we may in many cases so relieve nature that the cure spontaneously follows. In this connection a use of opium occurs to me which clearly proves my view that anodynes are really irritants—opium produces, as we all know, a dryness of the throat. Now, I have seen a case of simple sore throat, with great œdema of the tonsils and uvula, yield like magic to one-half drop doses of deodorized tincture of opium —a dose too small to act as a sedative.

Second. By alteratives—that is, functional excitants to stimulate the eliminative processes into activity, and thus aid the system in getting rid of the irritant and its products or excite reparative function.

Third. By supplying the organic tissue constituent, proper to the part affected, to furnish material for repair.

Acting upon the foregoing plan, we cease to regard any drug as a specific—that is, no drug is to be conceived of as curing disease. If recovery universally ensues upon the administration of a drug in any given disease, it is not because it neutralizes the poison as an alkali does an acid, but because it either as an anodyne blunts the sensitiveness of the system to the irritant, as an alterative hastens its elimination, or as a tissue food, by increasing nutrition, increases the resistance of the system.

The cure (?) of specific disease by mercury is a case in point. It does not depend upon the germ-destroying or antidotal properties of quicksilver, but upon the intense glandular activity it excites. It thus, by exciting the elimination of the disease-germs faster than they are reproduced, reduces their quantitative power of irritation until such time as the system may establish the condition known as tolerance—that is, the habit of resistance. But if we fail in so doing and the disease attacks the deeper tissues, and proceeds to the tertiary stage, where mercury cannot follow, we must fall back on irritants of a different kind, as, for instance, iodide of potassium, or, if peradventure this also fail, upon such vegetable remedies as phytolacca, sarsaparilla, etc., which certainly cannot be held to possess other than alterative properties, and yet they sometimes cure, which is all that can be said of any drug in any disease.

The physician who adopts the view I have set forth will neither become a blind worshiper at the shrine of therapeutics, nor will he become skeptical as regards her power. While attributing to nature the cure, he will be confident that he can both directly and indirectly assist her. He will lay greater stress than ever before upon the importance of employing anodynes and relieving all pain. He will no longer consider them as expedients to be employed till the specific remedy can get in its work, but as useful and important as the so-called specific itself. If the anodyne effects of opium are so valuable in peritonitis, why not in other inflammations? He will no longer consider his alteratives a specific, but as function-exciters, some promoting constructive and others eliminative processes. He will observe closer the special properties of his drug and not its quantitative. His dose will be smaller, but more carefully selected. To illustrate, I attempted to drive a nail into a brick wall one day with a large hammer. I simply succeeded in breaking the nail, defacing the wall, bruising my finger and losing my

temper. A carpenter, standing by, laughed, and taking a similar nail, by light and rapid blows with a tack hammer, drove the nail up to its head. It was the quality and not the quantity of force that did the business.

Realizing that in most acute diseases and in all chronic ones he has not so much to deal with the original cause as with its results, and that in no case can disease continue for any appreciable length of time without a greater or less degree of tissue-change and destruction, the physician cannot fail to recognize the importance of that class of remedies that are natural constituents of the body. They are the true specifics, for they add the things the lack of which constitutes or continues the abnormal condition he is called upon to treat.

Traditional medicine, it is true, recognizes the value of many tissue foods, and some of its greatest successes have been achieved by their use. No drug is superior to iron in the treatment of anæmia. The hypophosphites are the most potent weapons against consumption. And it may be noted as a curious fact, the authority for which I am sorry to have forgotten, that as consumption has decreased since their introduction, cancer has been more frequent. Whether there is any connection between the two I cannot say, but the statement is interesting as, if true, proving my theory that the excessive use of a tissue food produces irritation, and may cause injury to organs it would in proper doses repair.

But it would seem to me that the administration of iron to feed the blood and cause an increase of the red blood-corpuscles, of phosphates of lime to cure disease of lungs or nerves, with success, would warrant the use of every organic salt, as a part of any of the bodily tissues might be lacking and so cause disease or weaken resistance.

[The author then speaks in detail of magnesium phosphate, potassium phosphate, calcium phosphate, sodium chloride, chloride of potash, calcium fluoride, sodium phosphate and sulphate, lime and silica.]

As I have hinted all along, it is not by quantity, but by quality, that we may hope to help nature with our drugs. In fact, reason, as well as experience, would lead us to use small doses of the tissue salts. I have often, when the syrup of hypophosphites failed to agree, lessened the dose with the best of results. They must, as in the case of calcium sulphide instanced, be kept within the limits of foods or else they become irritants. Nor are we to consider gross measure as the standard of dose. There is nothing in nature

that corresponds to a grain, a scruple or a drachm. The remedy must, if it prove effective, be so finely divided by solution in the blood as to reach and irritate the ultimate divisions or cells, and it is undoubtedly needful, if we would get effects from some remedies that they be specially prepared with this end in view. We may triturate them with some inert substance as we now do mercury in grey powder.

Of course, considering both remedies and diseases as irritants, we cannot expect to cure a disease by a remedy that does not affect the organ or tissue diseased. It is also perfectly proper to make use both of the primary and secondary effects of that remedy. The production of vomiting by ipecac is as justifiable as its use to check vomiting, both being differences of degree in irritation. The use of large doses of sulphide of calcium to promote suppuration is as proper as the use of small ones to prevent. In medicine, if not in morals, "the end justifies the means."

I have in this paper lightly sketched over the ideas that ten years' practice of medicine have left on my mind regarding the part that drugs play in the treatment of disease. If I have no longer a blind belief in their power to cure disease, I have at least attained somewhat of knowledge concerning their possibilities. I know that by means of their use I can do much to mitigate suffering. I know that by their aid I can assist nature to throw off disease. I know, too, that by adding a few to my prescriptions, I can furnish, ready for immediate use, the raw materials nature requires in her workshop. Be it my task, therefore, having defined the limits of my field, to so labor therein as to bring forth a bountiful harvest.

FEEDING IN THE WASTING DISEASES.*

By EPHRAIM CUTTER, M.D., LL.D., and JOHN A. CUTTER, M.D.,
New York City.

First Section.—Tuberculosis Pulmonalis—one hundred cases.

Second Section.—The Fatty and Fibroid Derangements—fifty cases.

Third Section.—Male Neurasthenia—fifty cases.

First Section.—Statistics of one hundred cases of consumption treated by food plans to be hereafter described.

* Abstract from a Report presented to the Committee of Dietetics of the American Medical Association at its forty-first annual meeting, 1890.

RÉSUMÉ.

Series 1.—Non-arrests—twenty-one cases. (*a*) Cases that were not improved—nine. (*b*) Cases that were on partial diet, or were too irresolute, or had bad surroundings, financial, climatic, etc.—twelve.

Series 2.—Partial arrests—thirty-nine cases. (*a*) Cases that followed the treatment faithfully—nineteen. (*b*) Cases that did not follow the treatment faithfully—nine. (*c*) Cases that had bad surroundings, that died of pneumonia, etc.—eleven.

Series 3.—Permanent arrests—forty cases. (*a*) Tuberculosis—thirty-two cases. (*b*) Pretuberculosis—eight cases.

RATIONALE.

1. Tuberculosis is a systemic and not a local disease primarily.

2. Tuberculosis is a diseased condition or state due to the presence of a yeast in the blood with its fermentative products.

3. The yeast is introduced into the blood through the alimentary canal from starch and sugar in excess, and in a state of fermentation.

4. The physical micrological conditions found in the blood of tubercular cases constitute the peculiar morphology so often alluded to. The main features are as follows: (*a*) Spores of vinegar yeasts. (*b*) Spore collects. (*c*) Fibrin filaments unusually large and prominent. (*d*) Enlarged massal white corpuscles, this enlargement proceeding from the white corpuscles being unusually fertile niduses of the vegetation, called entophytal, similar examples of which abound in algæ. (*e*) Deprivation of the red discs of their coating of neurine, thus rendering them sticky, adhesive and singularly inclined to aggregate themselves in confused masses. At the same time they lose their color, their clean-cut outlines, and are diminished in number relatively and absolutely. (*f*) Thrombi formed of the fibrin filaments, of the corpuscles and of the spore collects. (*g*) All of the foregoing have been photographed with Tolles' objectives, from the one-fourth to his one seventy-fifth.

5. The vegetation may exist in a latent state.

6. It may be transmitted from parent to child in the milk, but the greater point of interest is in the tuberculous diathesis, produced by the same feeding in families for generations.

7. The morphology of the blood is commonly present some time during one year before organic disease. In other

words, there is a new physical sign of the pretubercular state. The senior writer has a monograph on that subject alone, illustrated with many micro photographs.

8. Food, then, is the agent of tremendous power that causes tuberculosis.

9. The treatment is based on the idea of removing the cause by ridding the blood of the presence of the yeast and its fermentative products by a process of starvation.

10. Tubercle is a secondary product (a result from embolism caused by the minute thrombi of fibrin filaments) of the massal corpuscles and of the spore collects, and also from mechanical and chemical effects of the embolism on the nutrition.

11. The breaking down of the tissues comes from a necrosis caused by this overloading of them with the products of fermentation.

12. The yeast is also found in the alimentary canal, on the skin, in the sputum, etc.

13. Flour has been raised into bread by the dejecta of third-stage consumptives.

14. The progress of the case is best watched and studied in the morphology of the blood. The spores are diminished, the filaments removed. The enlarged massal white corpuscles are reduced in size to normal proportions; the red discs acquire their normal color, covering and clean outlines; the fibrin filaments are hardly visible. Thus the red discs dispose themselves in the normal manner, the more perfectly as the cure proceeds. Any deviation in the regimen is indicated by the increase of the abnormal morphological elements in the blood. As the blood improves, usually the general symptoms improve *pari passu.* We have often witnessed, under treatment, the disappearance of râles of all kinds, night-sweats, emaciation, the reduction of the heart to normal size and frequency of beats, simply because of taking away the load it had to carry when the blood was filled with emboli, and was ropy and sticky.

15. This diagnosis by blood examinations does not exclude ordinary physical explorations; it supplements them. * * * The evidence must be collected with the least possible interval of time between the removal of the blood from its stream to the stage of the microscope; the capillary circulation is to be used, not the venous or the arterial; take blood from the radial or ulnar side of the fore-arm, by slight puncture with scarificator or scalpel; do not prick the end of the finger; the student must study the morphology of the skin as well as that of the blood.

16. There are other diseases in which the normal blood morphology is changed, to wit, rheumatism, cystinæmia, syphilis, ague, etc.

17. This rationale explains the cough, where it is not due to local irritation in the air passages, such as hyperæmia, ulcers, infiltrations, reflex irritations, to the presence of carbonic acid gas in excess. Sometimes it is wonderful how diminishing the fermentation does away with the cough.

18. This rationale explains hemorrhages as the result of local action of the vegetation on the tissues, the connective tissues being softened, disintegrated and broken down by the products of fermentative changes.

19. It explains the night-sweats as due to the interstitial necrosis of tissues, thus throwing more work on the skin; hence the injunction to take good care of the skin, and help the lungs while they are being healed.

20. The emaciation and loss of flesh and strength are only the results of the great tissue destruction going on.

21. The sputum must be studied for lung fibres, for the various crystals that are found in asthmatic conditions, and also the gravel, granular and encysted. * * *

22. Air is food. Yet consumptives have been cured in the rawest and dampest climates, and so many times that we must go behind the old idea that climate is the only cause of consumption. Granted that bad climate helps to cause the disease (and so also will worry, trouble, grief, assist towards death), the sending of patients away from home comforts to die elsewhere is not the thing to be advised. If home comforts, good air and the proper food can be combined, by all means do it. This is written with the knowledge that pulmonary disease has been arrested by climate. But our aim is to cure the cases wherever they are, because many cannot afford to change their climate or to live the remainder of their lives in the Adirondacks or Colorado.

23. Remove from the atmosphere of the patient all doubters, sneerers and those that argue, but never cure; agnostics and nihilists, not content with helping no one, will endeavor to help no one; they will endeavor to pull down your work. More permanent arrests could have been secured of these one hundred cases if the patient had been left alone.

24. While encouraging the patient at all times and in all emergencies, give him to understand what he is fighting; that he must not waste his nerve forces by needless thought and worry, but to hold on persistently and wait for nature to do the work. Each case is a law unto itself; this can be seen by the study of the cases herein recorded. We are

finite; death is certain; no man will ever cure one hundred per cent. of his cases, may we say, of any disease.

25. Lastly, as to Koch. In 1876, all of the morphology of consumptive blood was photographed with Tolles' objectives, to the highest power, his one-seventy-fifth. These microphotographs have been exhibited here and abroad, and we find none that equal them; this is written advisedly.

Bacteriology is but an extremely small portion of the micrological world. Such algologists and phytologists as Professor Paulus F. Reinsch, of Ehlangen, and Dr. Fr. Ecklund, physician of the first class of the Royal Navy, Sweden, endorse this work, as covering a much larger field than bacteriology does. If the proof was to be placed entirely on the results, then bacteriology must hold its head in shame, as no cures have been affected by it; but we are willing to controvert Koch on scientific grounds, and maintain the position that he has told but one-half the story; that botanists have been fighting for years as to whether bacteria were simply babies of the fuller-fledged vegetations; that the bacillus was photographed in 1876; that the ability to diagnosticate pretuberculosis and tuberculosis by blood examinations, and the means thus afforded of watching the cases, are worth immeasurably more than the diagnosis of consumption when the disease is apparent to all.*

Second Section.—The Fatty and Fibroid Degenerations.

I. Bright's Disease—twenty cases.

II. Fibroid Tumors—eighteen cases.

III. Cancer—twelve cases.

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The word nephritis gives us little light as to the real causes of Bright's disease. We would say, as to our belief, that the disease is commonly an expression of a systemic condition, either a fatty or a fibroid degeneration; that the fatty may be acute or chronic, the fibroid most always chronic. Some have thought because they found ganglia fattily degenerated that the renal disease was the sequence. But we ask, what was the cause of the ganglionic degeneration? The answer is—in the food eaten, in the air breathed, in the modes of life, the clothing worn, the amount (too much or too little) taken of exercise, our ways of thought, of carrying on our business, whether we are intemperate, etc., etc.

The old saying is that "you cannot get blood out of a stone." Certainly phosphorous and nitrogen, to say no

* We are ready to demonstrate the relations of bacteria to alcoholic and acetic acid yeasts by microphotographs.

more, cannot be made out of carbon, hydrogen or oxygen; so on the side of chemistry alone, if a man or woman will persist in feeding on starch and sugar, they must not expect nature to break her laws and change her elements into others.

But the excessive feeding of starch and sugar will in time produce the carbonic acid, and later on acetic acid fermentations in the alimentary tract. Carbonic acid gas is a poison; it paralyzes and kills men and animals when breathed; yet how many live with their stomachs bloated with this gas, wonder why they have heart-burn, and their families mourn when they drop suddenly in the street from heart paralysis due to this same gas; or they keep on their way living in spite of their vicious feeding, and the long-continued paralysis may result in a fibrous degeneration of the lungs, the stomach, the liver, the kidneys or the spinal cord; or nature, instead of building fibrous tissue under this slow-going paralysis (for it is well to remember that nature does her best always), will lay in fat in these tissues and keep the bulk of them intact just as long as she can.

A man on treatment for locomotor ataxy was much improved. Meeting a friend on Fifth avenue, he said: "I want to go into Delmonico's and eat a big dinner; will it hurt me?" His friend was a physician, but knew nothing about his treatment; he however said: "It will not hurt you." The man followed his advice, filled himself up with fermenting and fermentable food, with the result that the ataxia came back immediately. Why? Because the spinal cord was temporarily paralyzed by the carbonic acid gas.

The same thing we have seen within a year in the case of a boy on treatment for the same trouble; his fond mother let him have ice-cream and a big dinner, and his legs were almost immediately paralyzed. April, 1890, this boy is as bright and lively as most any of his age.

The various fibroid tumors are also instances of degeneration. Nature is doing her best, but she cannot lay down healthy tissues, so she builds with the poorest, to wit, the fibrous tissue. If this is not so, gentlemen, why did our cases recover? Granted we kept them quiet (when we could), and used every medical means our humble knowledge permitted us to prescribe, yet the main idea, and held to firmly, was that these were diseases of nutrition and must be attacked on that ground.

CANCER.

A woman of fine mind was attacked by two tumors in her sixtieth year, one just anterior to the right ear, the other

below the right breast. By careful attention to her diet, so that she lived plainly, by the use of alcohol baths, and by keeping her life in as even a tenor as possible, she lived until she was over ninety, and then died of her disease, which was called cancer. The tumor on the head had extended to the external angle of the eye; the tumor on the breast killed her. * * *

In 1887 (ALBANY MEDICAL ANNALS, July and August), the senior writer defined cancer to be "tissue under mob law"—"tissue rioting"—tissue that the body systemic cannot govern, and hence the reversion to embryonic types and the frightful results sometimes seen in this overthrow of the law of the body systemic.

The blood, that is, in our work, which extends over many years, does not show morphologically any causes; in the end it is impoverished, but we must say with all candor that we do not consider that cancer is a blood disease, but a tissue disease. This is confounding, perhaps, our present ideas, but disease has many phases, and we must not look on these matters from one side alone.

You may call, if you please, the cases that recovered not cancer; but the fact remains that they were very sick people before the treatment, and are not now. We could give you more cases, those under treatment at the present time. In one case, where the right breast had been removed, the disease returned; it was burnt out with the cautery, and finally came under our care last August, with a sore four inches long, four inches wide and one inch deep, pouring out the most filthy and stinking discharge. April, 1890, this woman was still alive, the sore is smaller, the discharge less. The treatment has been a rigid diet of chopped broiled beef, the application of tannic acid and quinine ointment to the sores (these applications agreeing better than any thing else); hemorrhage is now not frequent; still, her chances of recovery are very small.

Third Section.—Neurasthenia in Males.

Where often the patients objectively appear like consumptives (occurring amongst business men and students), and is due to improper feeding.

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Morphological Evidence.—This physical sign is found in the morphology of the urine. * * * On examination the urine appears clear, amber-colored, of good specific gravity, normal in odor, and all that is seen if you allow it to stand over night is a little protoplasmic cloud, occupying,

sometimes, the whole of the lower half of the vial; or if in graduate glass measure, the cloud will swing half way between top and bottom of urine. You cannot tell by the naked eye the characters of this discharge. It is put under the microscope, and the deposit is not made up of triple phosphates or urates; but if you use (as you had better use) a one-inch objective which is a good one (and the best are none too good), you will find, if the case is a typical one, collections of gluey (colloid) viscid matter, with no extra amount of mucous corpuscles or mucous epithelial cells, moulded in shapes like Indian clubs, varying in color from white to brown; then, if you look further, skeins of colloid matter, curled up in fanciful shapes, sometimes separated into single filaments, and sometimes filling the field full of the Hogarth lines of beauty. Besides this, the discharge is sometimes diffused through the urine in a light, fleecy, unorganized cloud, which it is sometimes difficult to recognize, *unless one is familiar with protoplasmic studies.* * * *

In both neurasthenia and Bright's disease of the kidneys there is more or less paralysis of the parts involved. Some regard the fatty degeneration as a means of staying the progress of the paralysis. It is a very interesting matter for consideration why the loss of albumen should not cause pain, when the colloid and perhaps albuminoid discharges which are found in the complaint under discussion assuredly do. One thing is certain, the neurasthenics thrive in the open air, and are worse in indoor air.

A clergyman with this trouble said he would be all right if he worked on a farm out doors, but he wanted to use his brains in his work. A diet substantially what is lined out below cured him so that he now works indoors and has recovered from impotency. But air is food. There is as much difference between fresh and foul air as between fresh meat and old.

GENERAL RULES OF TREATMENT FOR THREE SECTIONS.

Never prescribe raw beef.

Preparation of Broiled Chopped Beef.—Take beef from middle of the top of round of well-fed cattle who were not overdriven just before slaughtering. Cut beef into cubes one inch by one inch by two or three inches. Free from fat and connective tissue by running through a chopper. Mould into cakes one inch thick. Touch with the hands as little as possible; the human animal heat changes the character of the meat, making it "livery" and impalatable. Broil over bed of live coals, charcoal the best; oil or gas can be used.

The beef, when done, should be of very dark color outside, and when opened present a reddish but not raw appearance. If the beef is rightly prepared, it will be pleasant to the taste. Serve on hot-water plate and season with pepper, salt, lemon juice, Worcestershire sauce, and in some cases butter.

Drinks.—Drink one pint of spring or distilled water that has been raised to the boiling point, one hour before each meal and on retiring. Cool the water to a comfortable temperature and drink slowly. Rest till meal time; also after meals. The amount of water may be increased or diminished as the urinometer indicates. The urine must be at 1015 to 1020 specific gravity, free from odor, phosphates, bile or deposit. Drink clear tea or coffee at meals.

Baths.—Take ammonia sponge bath, one drachm to a pint of water, night or morning; or nitric acid baths, same proportion; or aromatic sulphuric acid baths, same proportion. Quinine and salicin may be given in bath per skin. The acid baths, and especially with alkaloids, are indicated in sweats.

Exercise.—Passive, by massage, so as to confer force; also passive by riding in carriage; also by riding on a walking horse. Do not wear people out with too much walking. Sick ones need their nerve forces for something else.

Drugs.—The rule may be laid down that *the fewer drugs given by the stomach the better.* Yet cases come where there has to be the most careful exhibition of medicines; and at times these same cases will, after taking a great deal of medicine, improve almost immediately on stopping all drugs per stomach. The integrity of the stomach must be kept at all hazards. Treating these cases one learns how to wait.

Tonics.—Salicin, strychnia, pyrophosphate of iron, cinchona, mixtures of the mild vegetable fluid extracts; English iodide of potash in small doses in asthmatic and rheumatic complications and in syphilis; biniodide of mercury, $\frac{1}{16}$ gr., an admirable cholagogue; exsiccated sulphate of soda for constipation; boneset, etc., etc. *Each case is a law unto itself.*

In *consumption*, *tumors* and *cancer*, the closer patients adhere to a rigid diet of the chopped broiled beef, the better they will do. Sometimes the stomach rebels; this it does when the beef is not right, despite the protestations of the butcher to the contrary; on finally pressing the point, you will disclose that the beef has been kept too long.

Again, the stomach needs firm discipline. There is a hysterical element in some cases (the word hysteria has been

poorly used), which must not be catered to and at times roughly handled. Prof. Wm. Goodell tells of how he stopped a patient vomiting by giving her a most cruel scolding. The rule is this, that the closer the lines are drawn, the better will the patient do; no man need to expect to succeed treating chronic disease if he has to argue with his patients on the right or wrong of this or that procedure.

When the urine becomes normal and the blood in good order, the physician may bring in gradually some vegetable food, as toasted bread, boiled rice.

The same rule applies to *neurasthenia.* These cases usually occur in those that cannot leave their business. It must be remembered that when the supply of fermenting food is cut off, the patient, previously half drunk and paralyzed by carbonic acid gas and alcohol, slumps, so to speak, and lays all his trouble to his diet. At these times it is well to give first-class whiskey or brandy to some cases. No wines, porter, ale or beer. Use beef extract; the whites of eggs slightly poached.

At times patients have to eat entirely against the appetite. Usually it is not well to eat beyond the appetite. In cases where stomachic feeding must be stopped for a while, alimentation has to be done per rectum and skin. It is well for all to remember that even the most depressing of cases, where the prognosis appeared fatal, have recovered. Have all cases go on treatment for a year at least and pay fee in advance each month.

ABSTRACTA.

Treatment of Rheumatism.—Saturation of the system by some simple and bland alkali, the continued presence of which will so nullify the pernicious effects of the abnormally secreted uric acid as to render it nugatory until the complete explosion of the forces which determine its excess shall have taken place. The sodium alkalies are the best, and of these sodium bicarbonate is to be preferred. It should be given in one-drachm doses every two hours, and its use persisted in until the *saliva,* which is acid in acute rheumatism, and the *sweat* and *urine* are found to give no acid reaction to blue litmus paper, with which, by the way, every physician should be provided when attending a case of this kind.

Sodium phosphate may also be given if preferred, in one-drachm doses, dissolved in about two ounces of water. These

sodium and potassium salts may be administered conveniently in Vichy water, or in an effervescing drink with a vegetable acid.

℞ Potassii bicarbonatis, ʒ ij, ℈ ij. } = gr. xx ad ℥ i.
Aquæ destillatæ, ℥ iij. }

M. Sig.—One fluid ounce of this solution to half an ounce of fresh lemon juice. To be taken while effervescing.

The thorough alkalinization of the system being demonstrated to the satisfaction of the physician, the dosage must be so graded, in respect to time and quantity, as to secure the permanence of the condition without uncalled for crowding of the remedies, a return being promptly made to such quantities as will maintain saturation, in the event of the litmus reaction test denoting that the acidity is regaining ground. This should be done for a week or ten days in a typically severe case, without waiting for painful exacerbations on the part of the patient as an indication for resumption of alkaline remedies.

The writer does not approve of or recommend the employment of salicylic acid or the salicylates in the treatment of cases of acute rheumatism. The effect of these drugs, though at times brilliant in producing subsidence of pain, is very uncertain and always transient, relapses being the rule; and the continued administration of these remedies is, moreover, productive of a series of deleterious symptoms, such as gastric and cerebral disturbances, cardiac depression, obliteration of the first sound of the heart, anæmia, and other toxic phenomena.

In the most recently published views upon the subject of the salicylic compounds as applicable to acute rheumatism, it is urged that while they are of special *utility in relieving pain*, their use does not lessen the tendency to cardiac complications or hyperpyrexia, and that they are powerless to cure these when they do arise. In addition to such negative properties, it has been observed that salicylism may induce certain hemorrhagic conditions, such as epistaxis, bleeding from the gums, hematuria and retinal hemorrhage.

This is rather a bad record for so vaunted a specific.

Exacerbations of temperature must be met by the administration of antipyrin, antifebrin or phenacetin in such doses and at such intervals as to maintain an equable temperature of 101° F. Antipyrin may be given with safety in ten-grain doses every three or six hours, antifebrin in five-grain doses every five or six hours, and phenacetin in ten-grain doses every six hours. To further guard against the action of these drugs as depressants, it is an excellent rule to combine with each dose half a grain of powdered *digitalis*.

Quinine, which has been so indefatigably given in acute rheumatism, as well as in almost every other ailment that flesh is heir to, while it has its place, is worse than useless in the acute stage of this disease.

Large draughts of water may be allowed, cold, but not iced. Advantage is taken of the oxidizing properties of water by thus permitting its consumption in large quantities, the hydrogen tending to the formation of ammonia, the oxygen to that of urea. The elimination of uric acid is also furthered by the imbibition of water in excess, the skin being made to strain off much of the acid in the perspiration superinduced by the water. Lemon juice, which has been advocated as a specific remedy for the disease, may be allowed as freely as it is usually urgently demanded by the patient. Lemonade, or drinks compounded from citric acid, without much sugar being added, may be given as often as asked for. The vegetable acids, being converted into carbonates, contribute to the desired oxidation. Milk, previously boiled, may be given, on cooling, with lime water or Vichy water. If the diet is restricted to this simple but nutritious and agreeable combination until the major manifestations subside, perhaps all the requirements indicated will be met. Chicken or clam broths, or vegetable soup with a little beef flavoring, need not be interdicted. If meat broths are given, they should not be given until they have been allowed to cool, for the purpose of removing the fat from them.

When convalescence is fully established and tonic treatment is instituted, the return to solid food may be allowed. It should consist at first of white meat and vegetables. Of the latter, asparagus and stewed celery are to be recommended. Small quantities of fresh fruit may be permitted if desired. Alcohol, in any of its forms, should not be allowed, and there should be careful avoidance of sweetened drinks and saccharine foods.—*Extract from "Rheumatism and Gout," by F. Leroy Satterlee, M.D.*

"WHAT is the matter, doctor?" asked a reporter of a well-known chemist.

"I am mad; mad at the chemistry and the drug business. Look here!

"Oil of vitrol is no oil, neither are oils of turpentine and kerosene.

"Copperas is an iron compound and contains no copper.

"Salts of lemon is the extremely poisonous oxalic acid.

"Carbolic acid is not an acid, but an alcohol.

"Cobalt contains none of that metal, but arsenic.

"Soda-water has no trace of soda, and sugar of lead has no sugar; cream of tartar has nothing of cream, nor milk of lime any milk.

"Oxygen means the acid-maker, but hydrogen is the essential element of all acids, many of which contain no oxygen.

"German silver has no silver, and black lead no lead.

"Mosaic gold is only a sulphide of tin.

"These are only some of the mistakes of nomenclature in our business."—*Medical Herald.*

KOUMYSS, OR MILK-WINE.—Frank Kogelmann, of Gratz, chemist, says (*Deutsche Med. Zeitung*) we should no longer be dependent on the imported article, as we have the proper ferment in buttermilk.

If one volume of buttermilk be mixed with one or two volumes of sweet milk, in a short time lively fermentation sets in, and in about three days the work is completed. This produces a wine-scented fluid, rich in alcohol, carbonic acid, lactic acid and caseine, which, according to all investigations yet made, is identical with koumyss. By this means every one can provide the drink at a trifling cost.

The following practical hints for the production of a good article will be found useful:

The sweet milk used should not be entirely freed from cream. The bottles should be of strong glass and only two-thirds full. The fermenting milk should be industriously shaken at least three times a day, and then the cork put in firmly, so that the fluid will become well charged, and cause the carbonic acid to escape forcibly on opening the bottle. The bottles must be daily opened, and at least twice each day brought nearly to a horizontal position, in order to allow the carbonic acid to escape and air to enter; otherwise fermentation rapidly ceases. If a drink is desired strong in carbonic acid, the bottles, toward the end of fermentation, should be placed with the necks down. In order to ferment a fresh quantity of milk, simply add one-third of its volume of either actively fermenting or freshly fermented milk. The temperature should be from 52° to 68° F., about 60° being the most favorable.

CHOREA.—Semple (*Lancet*) describes a case of chorea in a child six years old, treated by liquor arsenicalis, three minims, gradually increased to ten minims thrice daily. The choreic movements lessened after two weeks, and in two more the temperature rose to 101°, with malaise and anorexia. The drug was stopped and the symptoms subsided. A few days later weakness of the right arm and both legs appeared. None of the ordinary toxic effects of arsenic being noted, its use was resumed, in four-minim doses. In a few days dark brown pigmentation appeared in the axillæ, back of the neck and popliteal spaces; this rapidly spread till the whole body was pigmented, except the face, which became pink and white. There was marked paralysis of the legs, the knee-jerks were absent, reaction of degeneration well marked. The legs were wasted. There was no other paralysis, but slight weakness of the right arm.

The arsenic was dropped, and iodide of potash with massage substituted. Two months later the pigmentation had mostly gone, and the paralysis was much less. The gait was then that of peripheral neuritis, the toes dropping and the heels catching the ground.—*Times and Register.*

Quadrangular Sounds for the Treatment of Strictures of the Urethra.—Many cases are seriously damaged by the longitudinal stretching which the sound portion of the urethra receives, and the round instrument which engages in a stricture develops so much friction, by reason of the fact that every part of its circumference impinges on the point of greatest resistance in the stricture, that much force is lost which, with a rectangular instrument of the same diameter but presenting less friction surface, could be utilized in stretching the urethra laterally and so gliding through it.

There are a few points of superiority which may be justly claimed for the rectangular insrruments :

1. They present four points of contact with the stricture, therefore less friction than the round.

2. They are grooved between the angles, and thereby insure the presence of the lubricating medium at the points where it will do most good.

8. They provide a means for applying solvent medicaments to the stricture.

4. They stretch the urethra in its transverse diameter at the point where it is organically diseased or in a state of spasm.—*American Lancet.*

The Nature of the Microbe.—For a long time there was a dispute as to whether disease germs were animal or vegetable, and the word microbe was adopted as a neutral term. Finally Pasteur compounded a fluid entirely of minerals, furnishing only carbon, hydrogen, oxygen and nitrogen, in form easily obtainable, and it was found that the microbes could subsist on this. As it was found that these disease germs would subsist on either animal, vegetable or mineral matter, wherever they could easily obtain carbon, hydrogen, oxygen and nitrogen, all bacteriologists now class them as vegetable organisms.

Opium Habit.—Jennings, at the Société Médicale de l'Elysée, showed a patient cured of the opium habit after twenty years' addiction. The chief remedies were cardiac tonics, nitroglycerine, cerebral galvanization and hot baths.—*Times and Register.*

Tape-worm.—Professor Paresi, University of Athens, uses cocoanut milk and pulp. No preparatory treatment is necessary. In all cases the entire worm, including its head, was passed on the morning following.—*Sanitary Era.*

Earache.—Five parts of camphorated chloral, thirty parts glycerine, and ten parts oil of sweet almonds. Cotton saturated with the above mixture is introduced into the ear.—*Medical Summary.*

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BOOK NOTICES.

ORTHOPEDIC SURGERY. By Bradford and Lovett. Published by William Wood & Company. One of the volumes entitled "Specialties in the Practice of Medicine."

The authors of this excellent work are to be sincerely congratulated upon the comprehensive and exhaustive manner in which they have presented this subject. It shows practical knowledge on their part, and also what the busy surgeon is ever on the alert to find, viz., the most concise manner of operating, and how to make practical use of the mechanical appliances, as given in illustrations. The book is worthy of commendation from every modern surgeon, and reflects great credit upon both authors and publishers. A. V.

RAILWAY SURGERY. A Practical Work on the Special Department of Railway Surgery, for Railway Surgeons, and Practitioners in the General Practice of Surgery. By C. B. Stemen, A.M., M.D., LL.D., Fort Wayne, Ind. 315 octavo pages, with numerous illustrations. Price, $3.00. J. H. Chambers & Co., Medical Publishers, 914 Locust Street, St. Louis.

On January 25, 1882, at Decatur, Ill., the first meeting of railway surgeons was held. An association was formed, and Dr. J. T. Wood, of Toledo, was elected president, and the author of this book was elected secretary. The proceedings were published in the *Fort Wayne Journal of Medical Sciences*, of which the author was editor and publisher. On October 18, a similar association was formed in Crestline, O., of which the author was chosen president. These two organizations led to the formation of the National Association of

Railway Surgeons, in Chicago, June 28, 1888. The Fort Wayne journal was adopted as the organ of this association, and changed its title to *Journal of National Association of Railway Surgeons.*

The author is well fitted for the task undertaken, not only by natural ability, but by training and fortuitous circumstances, and his volume will be widely acceptable.

The eighteen topics discussed include Spinal Concussion, Injuries of the Brain, Shock, Hemorrhage, Excisions, Color Blindness, Care of Injured on Foreign Roads, etc.

MINERAL SPRINGS AND HEALTH RESORTS OF CALIFORNIA, with a complete chemical analysis of every important mineral water in the world. Illustrated. A prize essay, awarded the annual prize of the Medical Society of the State of California, April 20, 1889. By Winslow Anderson, M.D., editor and publisher *Pacific Medical Journal.* 383 octavo pages, cloth, $1.50. The Bancroft Co., San Francisco.

This book is valuable in containing analyses of about two hundred California springs and of nearly as many other springs, domestic and foreign, and is made attractive by sixty illustrations and by much interesting descriptive matter. Maine and Vermont may think that some important springs have been overlooked, but the author, having included in his list the "Albany Artesian Well, Albany, N. Y.," "five hundred feet deep," deserves credit for having very nearly filled his aim of describing "every *important* mineral water in the world."

The usefulness of the book is enhanced by its three indices—index to illustrations, index to springs, and general and therapeutical index.

PERSONAL.

—On July 21st Dr. T. K. Perry and wife started for an extended tour of the continent, going via Niagara Falls, Chicago, St. Paul and Minneapolis to Yellowstone Park, thence to Helena, Montana, to Tacoma, Seattle and Portland, thence to San Francisco, to Yosemite, Los Angeles, San Jose, etc., returning via Salt Lake City, Denver, St. Louis, Mammoth Cave, Ky., etc., home. They will reach Albany about September 1st.

—Dr. Charles F. Clowe ('88), who sailed from London July 15th, en route to Benguela, Africa, as medical missionary under the American Congregational Board of Missions, expected to reach his destination, just south of the Congo Free State, August 10th.

ALBANY

MEDICAL ANNALS.

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CURATIVE REFLEX INFLUENCES.*

BY W. C. CROMBIE, M.D., SCHAGHTICOKE, N. Y.
(*A. M. C.*, '79.)

In November, 1886, there came to me a gentleman, aged 34, apparently of good habits, farmer by occupation, and temperate. Denied ever having had gonorrhœa; not addicted to excessive sexual intercourse, yet sexual passion well developed. Admits the practice of masturbation from about fourteenth to twenty-first year. General physical condition seemed good, yet he complained of a neurasthenia of the posterior and prostatic portion of the urethra, with severe pruritus of the perineum, anus, scrotum and thighs. This had existed since he was twenty-four, or for the past ten years. A closer inspection of the parts involved demonstrated that, with the pruritus, there was more or less condensation and hardening of the tissues, with altered nutrition of the integuments.

The condition present I denominated prurigo, and, for a better elucidation and understanding of the theory of my subject, "Curative Reflex Influences," I desire here to give a portion of Wilson's description of prurigo in "Quain's Dictionary of Medicine."

He says: "Pruritus is an excited state of the nerves of the skin, and as such is associated with various forms of skin affections, for example, with scabies, eczema, and urticaria, but in these affections there is a difference in the cause of the disease. In scabies and eczema, the cause lies in the tissues of the skin; in urticaria, on the contrary, it is present in the nerves themselves. Hence, urticaria is denominated a neurosis, and prurigo is also a neurosis, which leads onward to a defective nutrition of the skin. What especially

* Read before the Second District Branch of the New York State Medical Association, June 24, 1890.

characterizes prurigo is the combination of pruritus with an altered state of the skin, consequent on defective nutrition."

Not with the intention of relieving my patient of the prurigo with which he was burdened, but thinking to relieve him, perhaps, of the neurasthenic condition of the urethra, by divulsion of a stricture, which I thought might possibly exist from his previous habit of masturbation, I introduced a metallic urethral sound, and was unable to demonstrate a stricture, but a condition of sub-acute urethritis and evident congestion. The proceeding was quite painful. I requested him to return (this being November 22), which he did on the 31st, and, to my surprise, reported a relief of the neurasthenia and of the pruritus as well. I again passed the sound, and so continued doing at variable intervals until the 7th of January, a period of six weeks, discharging him as cured of the prurigo, which had resisted the treatment, both of external applications and internal medication at the hands of some of the ablest practitioners in various parts of the state.

To what process was this due, and can it be followed to a conclusion through physiological reasoning? I think it can, and the key is in the description of prurigo as above defined in Quain, also an extract from some personal correspondence received by me from Dr. L. Bolton Bangs, surgeon to St. Luke's and Charity Hospitals, New York, to whom I am indebted greatly for many of the thoughts on this subject.

He says: "None of my cases showed any prurigo, but I can readily understand that a long-continued local irritation of the nerve centre might induce changes at the periphery generally."

The long-continued chronic reflex irritation in this case, it seems to me, came from the sub-acute urethritis, produced by the continuous practice of masturbation, and that the changes at the periphery, in nutrition, were due to reflected vaso-motor influences. That certain of the pelvic mucous membranes are intimately associated with important nerve centers is demonstrated by experimental observations.

Savory, in the discussion of a paper by Sir A. Clark (*Lancet*, Dec. 22, 1883), says: "Every surgeon must be familiar with the fact, confirmed by physiological research, that during the administration of anæsthetics, after the power of reflex action has ceased in all other parts of the body, it still can be produced by irritation about the urinary organs."

It is a fact that the urethral is not the only mucous membrane whose irritation has at times a depressing effect upon the circulation, as is seen, for instance, in operations upon the anus and the rectal sphincters. Belfield has been able to

satisfy himself that this effect was due to a true reflex action. Hilton, in his book, "Rest and Pain," says that spasmodic stricture of the urethra, retention of urine, and chordee produced by gonorrhœa are causes of setting up an "excito-motor action" of the spinal cord. It is well known that Hebra used to say that pruritus meant "cutaneous capillary congestion," one of the first steps towards a change in nutrition.

To better understand the relief to my patient of his neurasthenia and prurigo by sounding the urethra, thereby changing the character and nature of the sub-acute urethritis (which was, no doubt, the exciting cause of the reflex of vasomotor influences to the cutaneous periphery, resulting there in changes of nutrition), let us get a clear understanding of the paths for the transmission of either sensation or motion, or both, by a study of the nerves of this particular region. The internal pudic nerve supplies the muscles of the perineum and deep urethra. It also supplies the penis, its skin, mucous membrane and erectile structure, and the branch known as the dorsalis-penis is especially accompanied by branches of the sympathetic nerve from the inferior hypogastric plexus; thus the same nerve which supplies the anterior part of the penis also supplies its deeper parts—its muscular tissue. Now, say an irritation of the urethra is conveyed to the spinal cord, there to be converted into a motor impulse, and thence transmitted to the muscular structure of the penis. It may be transmitted to the neck of the bladder, for the nerves which supply these parts of this viscus arise from the same roots (second, third and fourth sacral) from which arise the internal pudic. Another interesting fact is that this nerve (internal pudic) supplies the integument in front of the anus, of the perineum, and of the back of the scrotum, while it communicates freely with the branches of another nerve (the small sciatic), which are distributed to the front and lateral surfaces of the scrotum. The same sacral roots (second, third, fourth, and sometimes fifth) which give origin to the internal pudic and small sciatic nerves, send branches to the prostatic plexus. Here, then, is a direct communication between the prostate gland, the urethra, and the integument of the perineum and genitalia—a direct channel for the transmission of influences, sensory or motor.

After noting the change in the condition of my patient, reasoning from the association of the nerve supply that the prurigo was dependent upon the urethral inflammation and congestion, I continued to pass the sound with decided

benefit. It is worthy of note that, in acute or chronic prostatitis, one of the characteristic symptoms is pain, often severe, in one or both thighs or legs. This is better understood when it is remembered that the greater and lesser sciatic nerves spring from the same sacral roots as the nerve which supplies the prostatic gland.

This case was an exceedingly interesting one to me, and I trust that my physiological premises may bear me out in choosing my subject as I have, viz., "Curative Reflex Influences," in this, that an alteration in the blood pressure, resulting from my manipulation of the urethral mucous membrane, reflected, through the wonderful nerve-supply shown, a vaso-motor influence, thereby relieving that condition termed "cutaneous capillary congestion," also resulting in a dissipation of the exciting cause, the urethral inflammation.

PRICES SEVENTY YEARS AGO.

Dr. G. H. Newcomb ('55), of Albany, has in his possession a letter of which the following is a copy. We annex prices for 1890.

NEW YORK, *5th Sepr., 1820.*

MESSRS. I. & I. L. STAATS,

Bought of I. & T. L. CLARK & SON:

			Price in 1890.	
5 lb. Opium opt.....	@ 72*s.*,	$45.00.	@ $4.00,	$20.00
20 Sal Nitre.....	14 cts.,	2.80.	16 cts.,	3.20
20 Gum Arabic.....	2*s.* 6*d.*,	6.25.	1.00,	20.00
21¾ Ol.Vitriol, bottle 10*s.*6*d.*,	1*s.*,	4.03.	.04,	.87
10 Pulv. Cream Tartar....	2*s.*,	2 50.	.42,	4.20
5 Hiera Picra.....	5*s.*,	3.13.	.35,	1.75
5 Orange Peel.....	1*s.* 2*d.*,	.27.	.25,	1.25
3 Sponges, fine, small. ...	12*s.*,	4.50.	3.00,	9.00
3 Pulv Jalapæ.....	6*s.* 6*d.*,	2.44.	.45,	1.35
3 Calomel ppr.....	11*s.*,	4.12.	1.00,	3.00
3 Borax.....	4*s.* 6*d.*,	1.69.	.14,	.42
3 Arrow Root.....	4*s.*,	1.50.	.45,	1.35
¾ Ol. Lemons, box 6*d*...	44*s.*,	4 19.	2.00,	1.50
2 doz Bals. Turlington's..	14*s.*,	3.50.	.75,	1.50
2 " Pomatum.....	4*s.* 6*d.*,	1.13.		say 1.13
2 " Court Plaster.....	3*s*,	.75.	.25,	.50
12 Gross Bottle Corks....	4*s.* 6*d.*,	6.75.	.30,	3.60
121½ lbs Ivory Black....	4¾ cts.,	5.74.	.20,	24.30
2 Merc. Precip. Rub.....	12*s.*,	3.00.	1.14,	2.28
Bbl. 2*s.* 6*d.*, Box 3*s.*, Keg 3*s*, Cartage 2*s.*,		1.31.		
		$105.05.		$101.20

GENTLEMEN—We have shipped the above by the Sloop Hardware, which compleats your order with the exception of rose water; none of this article has come into market made this season; that of the last is not good. We have charged every article as low as we possibly can afford them. We hope they will prove satisfactory both as to price and quality. Salts has advanced from 28*s.* to 32*s.* and 36*s.* [Epsom salts now 3 cents.] We give you those prices that if they are lower in Albany than at this place, you may lay in your stock, as there is no probability of their being lower this season.

Yours,
I. & T. L. CLARK & SON.

On the 12th June, 1821, settled finally with the Messrs. John & Thos. L. Clark & Son and taken their receipt in full of all acct's., reference being thereunto had will more fully appear.

ISAAC STAATS.

CORRESPONDENCE.

A NAME AND A LOCK OF HAIR.

Editor Albany Medical Annals:

I send exact copies of the enclosed letter and prescription (which were received by a sick woman in Albany who had sent her name and a lock of hair to Dr. B———), thinking they might be worth publishing, as going to show what is going on in the world and in Greene county. The names, of course, should be omitted, especially the name of the patient (now dead), in case you see fit to publish in the ANNALS.

Very truly yours,
S. A. RUSSELL.

DEVASEGO HOUSE,
PRATTSVILLE, GREENE CO., N. Y.,
August 11, 1890.

Mrs. ——— ———:

DEAR MADAM"—"Yours of the 7th reached me to day at 4 P. M. The delay is caused by my absence from Oak Hill." "In Answer inclosed find examination of your illness." Temperament Nervous Bilious. You come to me like a shaddow presenting a number of ailments. in looking at you," I see that your stomach is very weak and that there is tenderness and distress at the pit—there is some functional disturbence of your heart. slight causes induces more or less disturbence. At times you feel all gone and somewhat short of breath Kidneys irritated tired in your back—Liver torpid—bowels weak—attended with some internal piles—Bladder weak and irritated dull acheing in the lower bowels—some hacking from your throat—

fullness in your head—Which are the symptoms you present to me—Am I right? if so—then the means advised will help you—if the dose proves too much take less."

Respectfully,
DR. E. H. BENJAMIN.

Following is a copy of the prescription sent:

—— —— Druggist, —— —— St., Albany, N. Y.

℞

Fluid Ext

Triticum Repens - - -	f ℥ ij
Althea Officinal - - -	f ℥ ij
Digitalis - - - -	f ʒ ij
Populus Tremulodi - - -	f ℥ j
Aesculus Glabra - - -	f ℥ iss
Lupulin - - - - -	f ℥ j
Gention *English* - - -	f ℥ j
Scutellaria - - - -	f ℥ iss
Asclepias Troberosa - - -	f ℥ j
Essen Gaultheria - - -	f ʒ iss
Simple Syrup - - - -	f ℥ iv

M S

Dose a dessertspoonful in water once in five hours.

DR. E. H. BENJAMIN.

ABSTRACTA.

PYOKTANIN.— Prof. Dr. J. Stilling, of Strassburg University, in *Merck's Bulletin*, June, 1890. (1) *Botanic and Bacteriologic Experiments* (instituted with the aid of Dr. J. Wortmann.) "Above all other colorific substances of the numerous coal-tar groups — various *methyl* and *ethyl substitutes* of the *tri-amido-tri-phenyl-carbinol* and *tri-amido-di-phenyl-tolyl-carbinol* structures are qualified eminently *to prevent the development of bacteria.* A compound of certain of these substitutes finally selected by me I denote by the general name of *Pyoktanin* (=*pus killer*), distinguishing it when necessary, as '*Blue Pyoktanin*,' from another variety, of a *yellow* color. (*Where no remark to the contrary is made*, I have *always*, in the experiments here recorded, used the '*blue*' variety.)

"Paste, prepared from wheaten flour and a 2-per-1000 solution of *Pyoktanin*, *does not sour*, no matter how long it may stand. Milk, dyed with *Pyoktanin*, does not turn; only, later on, mold fungi colonize on the *cream* stratum that has meanwhile gathered. Butter and lard, likewise, with an admixture of *Pyoktanin*, do not become rancid.

"In testing a substance for its possible *antiseptic aud disinfectant properties*, it is advisable that *mold fungi* and *putrefactive bacteria* be employed.

"Of such *mold fungi*, we deemed the *mucor stolonifer* best adapted for our experiments, on account of its exceedingly rapid growth and its high resistance. Comparative tests were made with this fungus in the following manner: It was disseminated on a series of bread-rolls, some of which had been moistened with solutions of *Pyoktanin* of from 1: 500 to 1: 1000; while the rest were moistened with water. On the latter, the fungus attained complete and very luxuriant development, being about entering the fructifying stage, within 24 hours; while the rolls treated with the dye refrained from exhibiting any vegetation; and, *although continually kept moist for a fortnight, not a trace of mycelium could be detected on them. This behavior was witnessed both under artificial impregnation and spontaneous infection.*

"Further experiments were instituted *by painting* surfaces of a mixture of sugar, meat extract and gelatin, *in streaks and spots*, with a half-per-cent solution of *Pyoktanin*, and then breeding cultures of *mucor stolonifer* not only, but also of *phycomyces nitens* and of *penicillium glaucum*, on those surfaces. As soon as the mycelium, luxuriantly developing and vigorously growing in the normal mixture and centrifugally spreading, reached the painted spots or streaks, *it was arrested*, and the further development of the fungi was inhibited. This test is quite particularly instructive, and adapted for a convincing demonstration. * * *

"To establish conditions *still more closely* resembling those of the living organism, tests with *putrefactive bacteria* were made as follows: Solutions of *Pyoktanin* were prepared, of strengths varying from 1: 1000 to 1: 64,000. Of each of these, 60 cubic centimetres was put into a small vial. A similar vial was supplied with pure water. Thereupon, after a piece of raw beef was placed in each of the vials, these were stoppered with cotton; and then all were deposited in a thermostat kept at 25° C., to be abandoned to *spontaneous purefaction.* A great number of different coloring matters more or less allied to *Pyoktanin* were tested in this experiment, alongside of it; but none were found equal to it in action. Each culture was taken out from the apparatus once a day, each time just 24 hours from its last removal, to be microscopically examined for putrefactive bacteria. These examinations were repeated during five days.

"*The water-filled vial* exhibited *stinking putrefaction* already at the end of the first 24 hours.

"On the 6th day, *in some* of the vials containing *Pyoktanin* 1: 4000, *no putrescence* had formed; in *all those* containing 1: 2000 or 1: 1000 there was *no sign of any change whatever.*

"1: 64,000, in some of the instances, showed incipient putrescence after as little as 24 hours' time; after 72 hours the

1: 8000 solutions likewise, and in some cases also those of 1: 4000, were moderately colonized with bacteria; but *these bacteria were partly dyed blue*, and hence they were even in these cases very evidently and powerfully impeded in their development and growth.

"Thus, *Pyoktanin, in a solution even as weak as 1: 30,000, acts as an obstacle to the development of putrefactve bacteria.*

"*Putrefactive bacteria* being, as aforesaid, *the most resistrnt against antiseptic agents* generally, it stood to reason that *pathogenic*—particularly *pyogenic—bacteria would be still less resistant* to *Pyoktanin.*

"*This reference was confirmed by* direct tests on *pyococci* (*staphylococcus pyogenes aureus*, etc). Agar cultures thereof, inundated with a 1: 64,000 solution of *Pyoktanin* and then abandoned in the thermostat for about 5 hours, *exhibit an intensive coloration and are dead*, no further growth being discernible after a number of days' additional abandonment in the thermostat.

"On the basis of all these experiments, the conclusion is reached that—from a mere *botanical* point of view, in the first place—*Pyoktanin* is an agent which, *even in rather weak solutions, exercises a very marked restraint* on the development and growth of *bacteria*; whereas, *in somewhat stronger solutions*, say 1: 2000 to 1: 1000, *it acts as an absolute preventive*, and *surely destroys* whatever *bacteria* are already present.

"*The best agents* discovered in these experiments, *besides* the *blue Pyoktanin*, were some compounds pertaining to the *auramine* group, *the most eligible* of which I shall, for distinction from the *blue* variety of *Pyoktanin* hitherto described, denote *yellow Pyoktanin. This latter*, in solutions of 1: 8000 to 1:1000, in the thermostat, warded off the *bacteria* for 4 days.

"To answer the question whether *Pyoktanin* exercises any influence on the *enzymes* (so-called '*unformed*,' or '*unorganized*,' or '*soluble*,' or '*chemical*' *ferments*), the *diastatic ferment of malt* (which is known to be produced or emitted by *bacteria*), was subjected to tests.

"Herefrom, the notable conclusion is drawn, that *Pyoktanin is capable, weak solutions, of impeding a purely enzymatic action.* In sufficiently *stronger solutions*, it must exercise a *destructive effect* on the *enzymes.*

"Of the *great number of the allied substances tested*, besides the ones mentioned [Fuchsin, Methylene Blue, Rhodamine, Vesuvine], there were such as exerted quite a satisfactory *anti-bacterial* action, but from accessory reasons were *not found eligible for the purpose had in view;* for instance, on account of difficult aqueous solubility; gradual clouding of solutions; spontaneous decomposition [and in *animal experiments* from toxic effects of contaminating arsenic].

"(2) *Animal Experiments.*—My first animal experiment was a test of on the *eye of the rabbit.* As a matter of course, *Albinotic* (Albinistic) animals are preferable herefor.

"On *instillation* of deeply colored *solutions of Pyoktanin*—from 1: 1000 upwards—into the eye, the conjunctiva and the sclera are dyed very intensively, and the iris quite distinctly so On the other hand, the *medicament passes an intact cornea without in anywise visibly affecting it;* but if the epithelium has been previously punctured with a lancet to a slight extent, the cornea takes a very intensive coloration. *On the succeeding day, the coloration is gone.*

"If *dry Pyoktanin* be strewn into the conjunctival sac, the whole is dyed very deeply, and occasionally the substance is precipitated on the conjunctiva, and seen on the cornea, with metallic lustre. In the succeeding days, *the epithelium scales off* in large laminæ, which, under the microscope, exhibit a surprisingly intensive *fatty degeneration*, presenting a view about like that obtained in 'phosphorus-kidney;' withal, these laminæ and the entire sac are *completely free from bacteria.* On other mucous membranes, the same colorific phenomena are witnessed.

"*A peculiar effect of Pyoktanin on the human eye*, in many instances, *is a powerful dilatation of the pupil, without any paralyzation of the accommodation.*

"*Subcutaneously*, the rabbit and the Guinea pig *bear very large doses without harm.*

"The case is altered, however, when *injections* are made into the *peritoneal cavity. Very large doses*, thus applied, *will kill the animal.* On dissection, the entire contents of the abdomen—intestines, liver, kidneys—are found to be dyed an intensive blue. *The blood, however, retains its normal color;* and microscopic examination will show, particularly, that the blood vessels, contained within the quite intensively blue-dyed abdominal organs, have remained entirely normal.

"A remarkably beautiful illustration of this peculiar behavior is offered by the kidney. The sinuous cortical capillaries are found dyed intensively blue in such a degree as could hardly be obtained by the most carefully executed urethral injection, while between those capillaries the Malpighian bodies are seen in their perfectly normal red color, with the red blood corpuscles contained in them unchanged.

"Although, in the living human eye proof can, in certain conditions, be had that *Pyoktanin* may diffuse itself into the blood vessels, *it evidently repasses from them very rapidly into the tissues, without having wrought any change in the blood.* Death, in cases like those cited further *above*, probably results from the coloration, and thereby the paralyzation, of important nerve centres. In such cases, on dissection, *no trace is found of serous exudation—not to speak at all of inflammation*—the abdominal cavity is even remarkably dry!

"Rabbits *ingest Pyoktanin*, skillfully administered in their food, in great quantities, *without experiencing any disturbance.* On dissection the succeeding day, the intestine is found moderately blued; while, during its lifetime, when fed as stated, the fæces are intensively blue.

"*The lungs, also*, of rabbits may be injected with *Pyoktanin*, in rather considerable quantity, without any disturbing effect becoming apparent.

(3) *Therapeutic experiments and experiences had so far.*—"It was my most natural course to make my therapeutic attempts with *Pyoktanin* first on the eye. By *inoculating staphylococcus pyogenes aureus*, I produced a grave *hypopyon-keratitis* in a rabbit. *By sprinkling with a solution of Pyoktanin*, the entire extent of the ulceration not only, but also the flocculent pus-accumulation in the anterior chamber were dyed an intensive violet. *Herewith, the entire pathologic process was cut short.*

"A corneal ulceration in a scrofulous child, *treated for over a month with the greatest care by the usual antiseptics, without material success, was healed from one day to the next by the instillation of a few drops of a Pyoktanin solution.* A recent *hypopyon-keratitis* was *also healed from one day to the next*, upon proper sterilization of the ulcer by a *Pyoktanin pencil; the same result* was likewise obtained in an ill-looking *marginal ulceration.*

"Even now, my experiences in the direction here indicated are sufficiently numerous to enable me to characterize *Pyoktanin* as a *remedy in corneal ulcers of every kind, excelling, in every respect, all those previously employed*, and which will quite certainly and very soon *replace, to great advantage, even the galvano-caustic treatment of purulent corneal ulcerations.*

"Also in a number of *other external ophthalmic ailments*, as blepharitis, conjunctivitis, phlyctænæ, eczemas of the lid, *I have witnessed favorable results from both the blue and the yellow Pyoktanin, such as the other, hitherto usual medicaments, never yielded.*

"1st. In *keratitis parenchymatosa*, the actual cure of which is known to last ordinarily for months, I saw, *within a very brief time*, the delicate ciliary rubedinosity vanish, and the slender vascular loops at the margin of the cornea becoming reabsorbed. Under lateral illumination, an ordinary magnifying glass would show very plainly the *Pyoktanin infiltrating these very vessels immediately after the instillation.*

"*The films in the corneal tissue were rapidly reabsorbed; the eye resumed its normal clearness.*

"2nd. In *iritis serosa, of very grave forms*, with intensive and persistent injection of the sclera and diffused turbidities of the vitreous humor. *Within one to two weeks, the injection disappeared;* the eye became quite free from irritation; *the vitreous humor became clear;* and the visual power was improved remarkably within a very few days.

"3rd. Even in a few cases of *choroiditis disseminata of long standing*, I was made to witness *such amazing improvements in visual power in the course of a few days*, and which astounded my patients still far more than myself (who, I can confidently assert, have always viewed the matter as skeptically as possible), as to force me to the conclusion that the *Pyoktanin, infiltrating the choroidea, had there met pathogenic bacteria and arrested their growth.* It should be remarked that *the improvement described was permanent.*

"Strange as the foregoing may seem, its explanation need not be far sought. The *micro-organisms* which must be assumed as the producers of *choroiditis disseminata* are evidently *not so strongly pathogenic* as the *pyoid bacteria.* The latter, when once in the interior of the eye, destroy it within a few days; while the eye fights the former with success sometimes for decades of years, yea, sometimes finally overcomes them, as proven by the so-called 'tigrine fundi' found by *Albrecht von Graefe*, in which the visual power had remained unimpaired.

"4th. In a case of *grave sympathetic ophthalmia*, under symptoms of brain compression, an intensive *neuritis* first developed; then *diffused opacities* appeared in the vitreous humor, which in a few days reduced the visual power to mere quantitative perception of light; at last, *iridocyclitis*, with a daily increasing *myosis*, supervened. *Atropine remained, as usual in such cases, without effect.* For one month, the child was treated with strong *mercurial inunctions* and kept in a *darkened room, without the least effect;* on the contrary, the pupil grew more and more constricted; *exudations* appeared in the pupillary region, finally, by confluence, forming a *membrane* which *totally closed* the reduced pupillary circle. It became almost impossible for the patient to notice movements of the hand executed immediately in front of the eye. Considering the eye lost for sight, I thought myself justified in any attempt to still save its structure in some degree; hence, I instilled a 1: 1000 solution of *Pyoktanin. From that moment, the inflammation was arrested;* the eye became free from irritation; since about three months *the visual power is constantly on the increase*, and is now quite tolerable, large print being recognizable. The membrane that covered the pupil has become transparent in the central part, and throughout its extent permits the fundus to be noticed by a red transulence when illuminated by the speculum.

"I have *injected Pyoktanin into the vitreous humor* without producing any harm. *Purulent panophthalmitis*, created by inoculation, *was visibly arrested* by that medicament; although, of course, the eye could not escape being phthisically ruined.

"*Surgical Cases.* — *Purulent Paronychia.* — The attendant physician had already *cut out a portion of the nail*, but felt the necessity of *total extirpation* of the nail. I found a deep reaching purulent process under the nail of the great toe, a high

tumescence of the entire foot up to the ankle, painfulness of the limb and inability to walk. I touched up the purulent fundus with a *Pyoktanin* pencil; *on the succeeding morning the swelling had considerably decreased; the purulence had almost disappeared.* Only at one spot a little pus issued from the deep seat. *I once more applied the Pyoktanin pencil*, this time introducing it to the full depth of the purulent focus, and thus wholly sterilizing the latter. *Herewith, the cure was completed;* the toe had become *painless* even to vigorous pressure, and the tumor in the foot was entirely gone.

"*Surgical Antiseptic Methods by means of Pyoktanin.*—The *instruments* are to be simply well cleaned; or, if extra caution be desired, to be steeped, for some time preceding the operation, in a weak solution of *Pyoktanin*, say about 1: 10,000 or 1: 20,000. *After the operation*, the wound is to be washed with a somewhat stronger solution of the same—say 1:5000 to 1:2000. The needful stitching is to be done with silk impregnated with a 1: 1000 solution of the the same medicament. *Thus prepared dressing materials are not only reliably aseptic, but also reliably antiseptic*, and even *disinfectant; for the slightest secretion of fluids within the territory of the operation must at once cause an absorption of a sufficiently concentrated solution of the Pyoktanin.* Purulent developments in *puncture-channels* ought certainly not to be possible under this prophylactic *Pyoktauin* treatment.

"Where pus is deeply seated, there will be need of *injections*, of the introduction of specially constructed *pencils* or other forms, of *painting* with more concentrated solutions, etc. *Sprinkling-powders* will also prove useful in many cases.

"*In diseases produced by non-pyogenic bacteria*, as *syphilis and dermic diseases*, I have made *preliminary experiments*, with success.

"*The operator is liable to dye his fingers blue.* But this *is readily removable by washing with alcohol or eau de javelle*, or by touching up with *bin-oxalate of potassium. The dyeing effect is really of immense advantage, as it enables the operator to satisfy himself whether the sterilizer has reached every part that is intended to be reached by it.*

"Comparatively great quantities of *Pyoktanin being capable of injection into the abdominal and thoracic cavities*, and being capable of *ingestion* by animals *without causing any harm, still farther-reaching uses of it may be possible* in *typhoid* and *dysenteric intestinal ulcerations*, etc.

"For *ophthalmology especially*, I have found '*Yellow Pyoktanin*' *to be well adapted.*"

Foot-and-Mouth Disease as Prophylactic of Human Scarlatina.—J. W. Stickler, M.S., M.D., Orange, N. J., in *Medical Record.* On December 1, 1887, a paper upon the above subject was read in the presence of, and discussed by, the New York Academy of Medicine. Since that time I have obtained

from Dr. M. K. Robinson, of Dover, England, additional statistics.

First let me review. During February, 1884, a remarkable outbreak of sore throat occurred in Dover, England, which was due to the drinking of milk obtained from cows affected with foot-and-mouth disease. During the week ending February 9th two hundred and five persons were attacked with the disease. "The majority of persons who suffered during this Dover epidemic presented two prominent symptoms in common, viz., inflammatory sore throat, and enlargement of the lymphatic glands," but the lesions produced varied considerably in different cases. The vesicular eruptions were followed either by a raw red, œdematous appearance of the mucous membrane, or white patches, and the ulcers which supervened assumed in many instances a chronic character, with thick puckered edges, and were a long time in healing.

When the inflammation of the tonsils went on to suppuration, recovery was much slower than after common quinsy, and the enlarged cervical glands remained tender, red and swollen long after the throat symptoms had subsided, *resembling, in this respect, the sequelæ of scarlet fever.* (I am quoting now from Dr. Robinson's original paper on the Dover epidemic.) Erysipelas and purulent formations were concomitants also of the epidemic. "In some instances the feet of those who suffered were swollen and painful, simulating rheumatism."

The following *facts* were elicited :

1. That members of eight different families who had previously had scarlet fever, escaped the "throat epidemic," while all the other members contracted the disease, all alike having taken freely of milk infected with the contagium of foot-and-mouth disease. The number of those who escaped was 23 +. I say plus 23, because in the case of one family we were told that the father, mother and servants escaped, the number of servants not being stated. Allowing the number of servants to be two, the whole number would be 25.

2. That of 183 persons who had the "throat epidemic," 16 had had scarlet fever.

3. That 4 of the 16 persons who had had scarlet fever had a mild form of the "throat epidemic."

4. That two of the affected individuals had scarlatina when young.

5. That none of the persons affected with the "throat epidemic" had contracted scarlet fever from natural, accidental exposure, between the time of having the "sore throat" and the date of my visit (1886).

Facts concerning an outbreak of foot-and-mouth disease in Bethersden, England, in 1884 :

1. That two members of one family who had not previously had scarlet fever developed the foot-and-mouth disease, while

four other members who had previously had scarlet fever escaped.

2. That three members of another family who had not previously had scarlet fever contracted foot-and-mouth disease, while the three other members who had had scarlatina escaped.

3. That but one person developed scarlatina after having had foot-and-mouth disease, and that attack was very mild.

4. That persons who, having had scarlatina, contracted foot-and-mouth disease had the latter affection very mildly.

5. That these individuals developed the foot-and-mouth disease as a result of exposure to manure derived from cattle affected with aphthous fever.

[Dr. Stickler gives an account of three children whom he inoculated in 1884 with virus from a cow having a mild attack of foot-and-mouth disease, showing subsequent protection both from that disease and from scarlatina.]

Foot-and-mouth disease as it affects animals [from Prof. Walley]:

Synonyms.—Murrain, eczema epizootica, distemper, epizootic aphtha, vesicular epizootic, aphthous fever.

Definition.—It is a vesicular eruptive, or exanthematous affection, due to a specific ferment, and having its lesions localized in the skin and mucous membranes.

Characters.—Eczema epizootica is probably indigenous in the bovine tribe only, but there is no direct proof that it may not originate in the ovine species also. It readily attacks sheep, goats, swine and poultry; it is easily transmitted to the human subject, and it has been described as existing in the horse, the dog, wild-fowl, deer, wild boar, etc.

Dr. Klein, of London, says the disease is caused by a micrococcus which forms in artificial media, besides dumb-bells (diplococcus), beautiful chains (streptococcus). These differ in length according to the number of micrococci composing them, the short chains being a linear series of four, six or eight micrococci; the longer ones, of more than eight up to thirty and more micrococci. The longer chains are always curved, and even convoluted.

Dr. L. McLean, Government Veterinary Surgeon, says: "In the bovine species one attack of foot and mouth disease does not give immunity from the disease, but in the ovine species it does."

The channels by which nature endeavors to eliminate the poison are the salivary and mammary glands, the mucous glands, of the bronchial and intestinal mucous membranes, and the skin.

The effects of the poison on the skin are invariably well marked, desquamation of the cuticle being extensive; but while this is a common characteristic of many zymotic diseases, it nevertheless points to the necessity of encouraging the elimination of the poison by this channel.

Period af Incubation is, compared with other zymotic affections, short, viz., from twenty-four hours to three weeks. The average is from two or three to five or six days.

Invasion is, on the whole, rapid and pronounced, the manner of invasion depending upon the amount of poison received into the system, the condition of the host, and the surrounding circumstances.

Duration is variable, and is regulated by the intensity of the attack and the care which is bestowed upon the patient; from ten to twenty-one days may be looked upon as the average period of duration where the disease runs a regular course, and is not succeeded by important sequelæ.

Fatality depends largely upon the nature of the outbreak ; in some seasons death in any animal is rare, while in others great numbers succumb to the primary effects of the disease.

Propagation.—It is propagated by direct and mediate contagion, as the virus is both fixed and volatile, but it is only diffused through the medium of the atmosphere at comparatively short distances. As the saliva, the nasal, conjunctival, and intestinal mucus and intestinal mucus are highly charged with the virus, it is readily spread by the conveyance of these secretions to healthy animals.

Symptoms and Course.—The symptoms must be divided into general, constitutional and local.

The premonitory constitutional symptoms are identical with those of other zymotic diseases. These are isolation, usually very marked ; arched back in cattle ; tucked up abdomen ; muscular twitchings or shiverings, more or less severe ; erection of the hair, the skin being hot and dry ; and stiffness of gait, which is most pronounced when the feet—and particularly so if three or the whole—are affected.

Bowels usually a little constipated ; urine sometimes scanty, high-colored, and laden with solids, especially as the disease advances ; at other times it is profuse and limpid. There may or may or may not be mucous discharge from the eyes and nose, with increased lachrymal secretion from the former. In young animals, exposed to inclement weather, such discharge is very constant, and in the course of a few days that from the eyes forms a yellow accretion at the inner canthus of the lids and down the sides of the face, a similar accretion being formed by the nasal discharge round the edges of the nostrils.

Under exposure, an irritable bronchitic cough is present, by localization of the lesions in the bronchial mucous membrane. Temperature always elevated to the extent of 2° or 3° F. The pulse and respiration may not be much disturbed.

Climax at from the third to the seventh day. Vesicular and pustular eruptions may appear on the skin of different parts of the body ; they are most often seen in the pig, and may be succeeded by secondary and tertiary crops. Desquamation of the cuticle is an invariable accompaniment of convalescence. In the course of a few hours, subsequently to the advent of the lameness, the vesicular eruptions appear. The pedal vesicles, in size from

a hazel-nut to a walnut, burst in from three to twelve hours, and discharge a limpid or pale straw-colored fluid.

The mouth vesicles vary in character ; on the tongue the vesicles are much longer than elsewhere. On the lower lip and on the skin outside the lips, vesicles are rarely seen.

Thomas, in his article on scarlatina, says: "Soon, perhaps already on the second or third day, the entire coating of the tongue with the superficial layers exfoliates, either at once or in successive sections, in a manner found in no other disease." Now here is a disease in which this very thing does occur, as already stated on the authority of Fleming. In both, the papillæ of the tongue are swollen and prominent. In both, there is abundant desquamation of the cuticle. Sometimes in scarlatina ulcers occur upon the tongue, cheeks and gums, as in foot-and-mouth disease.

Give the proposed method a fair, honest trial. If we learn that we may thus prevent the development of a disease so common, ofttimes so fatal, and so frequently followed by distressing sequelæ, will we not confer a blessing on those who are susceptible to its contagium? * * *

Fractured Thigh; Easy Method of Treatment without Long Splint or Pulley.—Dr. J. W. Davis, of Smyrna (Tennessee State Medical Society): Place the patient on a bed, with a folded quilt under him; let the fractured thigh be semi-flexed on the body, and the leg on the thigh; prepare an eight-tailed bandage and three pasteboard splints the length of the well thigh, softened a little with water; put the bandage under the thigh, with the tails or strips well and smoothly laid out; take hold of the knee, with an assistant to hold the hips, and make gentle traction, with the thigh and leg both half flexed, until the bone is well adjusted; then bring the thigh down in the bandage, with the outer side resting on the bed. Now, with the splints placed on the thigh next to the skin, the bandage is put on, by placing alternate layers or strips well over each other; fasten the bandage well, and put a soft small pillow under the knee. The patient can now rest easily on his side, with the well leg thrown over in front of the fractured one, or he can turn on his back, always keeping the fractured thigh on its outside, half flexed on the body, and the leg on the thigh; this will keep the shaft of the fractured bone in a line with its natural position. The dressing must be tightened up once a week. Always, when doing this, the knee must be firmly grasped and gentle traction made, to bring the thigh bone out to its full length. The muscles soon cease to contract, and, with care, you will rarely ever have a shortening of the bone. The blood-vessels lie so deep under the muscles that there is no danger of strangulation or congestion. The calls of nature can be attended to without trouble with the patient on his side, thighs flexed, etc.—*Virginia Med. Monthly.*

PHTHISIS: TREATMENT WITH CREASOTE, ETC.—The inhalants used were as follows:

℞ Creasoti (Morson's),
Sp. chloroformi,
Alcoholis, - āā equal parts.

M. S.—Five to twenty drops, to be used on the inhaler every three hours.

℞ Iodoformi, - - gr. xxiv
Creasoti (Morson's), minims iv
Ol. eucalypti. - minims viij
Chloroformi, - minims xlviij
Alcoholis,
Ætheris, - āā q. s. ad ℥ ss

M. S.—Five to twenty drops, to be used on inhaler every three hours.

Robinson's perforated zinc inhaler was used.

Internally creasote was given in the following formula:

℞ Creasoti (Morson's), minims xij
Glycerinæ (Price's), ℥ j
Sp. frumenti, q. s. ad ℥ ij

M. S.—Half a teaspoonful every three hours, well diluted.

Cough medicines were frequently used, and those proving most effcient being syr. pruni virg., one part, with syr. hypoph. comp., three parts, of which two teaspoonfuls taken every three hours gave marked relief in many cases; also, ac. hydrocyanaci dil. ʒ ss; sp. chloroformi, ʒ ij; syr. pruni virg., ad ℥ ij, of which a teaspoonful given hourly at night relieved the vesicular cough, thereby enabling the patient to sleep.

For the fever, it was found that two grains each of quinine and antipyrin, given every two or three hours, gave the most relief.

For the night-sweats, the following drops, given at six and nine P. M., seemed to give more comfort than any other combination:

℞ Atropinæ sulph., - - gr. j
Morphiæ sulph., - - gr. viij
Ac. sulph. arom., - - ʒ ij
Aq. menth. pip., q. s. ad ℥ j

M. S.—Five drops every three hours at night.

For the diarrhœa, powdered opium and tannin usually answers every purpose.—*Wm. Perry Watson, M.D., Jersey City; Virginia Med. Monthly.*

NAREGAMIA ALTA AND COCILLAÑA.—The evidence thus far obtianed from clinical experience would indicate that in the spasmodic cough of acute bronchitis, in the hacking cough of phthisis, and wherever there is marked interference with the respiratory function through accumulation of secretion of the inflamed membranes, these remedies are likely to prove efficient.

Trephining the Ilium for Iliac Abscess.—A girl of eighteen years complained of pain in the right iliac region and thigh, the right hip having undergone excision five years previously. Deep fluctuation was detected in the right iliac fossa, and the aspirator withdrew six ounces of pus. Aspiration was repeated three days later, and five days after this second aspiration, the temperature being hectic in character, Mr. McGill opened the abscess above and behind the anterior superior spine of the ilium. A considerable quantity of pus escaped. On passing the finger into the abscess cavity a piece of the iliac fossa the size of a sixpence was felt to be denuded of periosteum. Over this spot, situated five inches below and behind the anterior superior spine, a transverse incision was made, dividing the skin and glutei muscles down to the bone. A three-quarter inch trephine was applied, and a portion of bone this size, including all that was bare of periosteum, was removed. The abscess cavity was thoroughly scraped in all directions and freely irrigated with a solution of perchloride of mercury. A drainage tube large enough to fit exactly into the trephine opening was inserted, and the wound above the iliac crest was closed with sutures. A large antiseptic wool dressing was applied.

The after-progress of the case was in every way satisfactory. There was a copious serous discharge, which necessitated frequent changes of the dressings for forty-eight hours. The temperature dropped to normal on the second day, and never again reached 90°.—*A. F. McGill, in Lancet, April 5, 1890.*

Alum and Filtration.—I have been told that alum was in use in purifying the waters of some of the western rivers over fifty years ago. The report I wrote on the purification of water by alum was published in the report of the Geological Survey in 1884, and widely copied by the press. I called attention later to the probable formation and action of salts of aluminium and iron as water-purifiers in nature, and a few weeks ago I published in the *Scientific American* a description of a simple apparatus for household use whereby the use of alum in purifying water could be taken advantage of.

After carefully expermenting in the action of alum in water on a small scale in the laboratory, application of it was made to the water-supply of the town. I have no reason to suppose that its use has been abandoned. It takes, however, a much larger amount of alum to purify water by sedimentation than by continuous coagulo-filtration, which is the Hyatt method. Hence the introduction of the Hyatt filter would probably materially reduce the amount of alum used. It would be necessary to use alum for only certain portions of the year, and only from one-fifth to one-third of a grain of alum is required to be added per gallon of water handled. As the alum contains nearly half its weight of water of crystallization, there will be only one-tenth to

one-sixth of a grain of dry alum added per gallon of water handled. This minute amount is all that is needed to coagulate the impurities sufficiently to enable them to be removed by the filter. When alum is properly used in the purification of water, *not a trace of it remains in the water after purification.*

I am firmly convinced, from my experience with water purification on a large scale, that a process of purification, such as the Hyatt, which will furnish the year round a clear, pure, colorless, odorless, bright and sparkling water will materially decrease the rate of sickness, especially in summer, when children's bowel troubles are prevalent.—*Peter T. Austen, Ph.D., F.C.S., etc., Rutgers College.*

Purulent Ophthalmia.—Put patient to bed and protect healthy eye. Warn nurse of danger to her own eyes. Apply cold continuously, by pledgets of linen laid on ice and changed before becoming warm. The pledgets which are removed should not be replaced on the ice, but burnt. Wash eye every few minutes with saturated solution of boric acid, often enough to keep eye free of discharge. This suffices for mild cases. If the lids are much swollen, cut outer canthus and canthal ligament, to relieve eyeball from pressure, and deplete. Instill a two per cent. solution of nitrate of silver just after washing. If discharge is slight, once a day is enough. If discharge and swelling increase, repeat silver two or three times a day. If chemosis persist, with hazy cornea, instill atropine, gr. ij ad f ℥ j, three times a day, and paint the silver over the chemotic conjunctiva, instead of the cornea. Give morphine, if needed to secure sleep, and plain but nutritious food.—*Andrews, N. Y. Med. Jour.*

Norway Spruce twigs, placed in water, in a few days feather out with tender, pale green branches, soft and cool to the touch, and will fill a room with a delightful, health-giving odor.

Diabetes in Children.—Stern has collected one hundred and seventeen cases, and believes the disease is not rare in early life.

The Darwinian Theory, Sir William Dawson, C.M.G., LL.D., F.R.S., in his new book, "Modern Ideas of Evolution," says is founded upon assumptions, which, if not yet proven to be altogether false, are by no means proven to be true.

Charles Dudley Warner says that the difference between the "faith cure" and the "mind cure" is that the mind cure doesn't require any faith, and the faith cure doesn't require any mind.

Hypnotism.—Germain Sée declares that to relieve pain by hypnotism, and to render the patient hysterical thereby, is to cast out Satan by Beelzebub.

Albany Medical Annals.

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BOOK NOTICES.

THE PHARMACOLOGY OF THE NEWER MATERIA MEDICA. Issued in 12 to 15 monthly parts. Subscription price, $2.00 in advance. Parts One to Five, 410 pages, large octavo, now ready. Detroit, Mich.: George S. Davis.

This publication, which includes the botany, chemistry, pharmacy and therapeutics of the drugs considered, is one of the brilliant results of modern investigation and American genius.

HEADACHE, NEURALGIA, SLEEP AND ITS DERANGEMENTS, AND SPINAL IRRITATION. By J. Leonard Corning, M.A., M.D., New York. Second Edition. With an Appendix by David Webster, M.D., New York, on "Eye-Strain a Cause of Headache." 259 pages, 8vo, $2.75. New York: E. B. Treat, Publisher.

Dr. Corning has long been known as a brilliant laborer in practical neurology. His prolongation of the local action of cocaine, by wire gauze pressure and by other means (illustrated in this book), is sufficient of itself to perpetuate his name.

NANCREDE'S ANATOMY AND DISSECTOR, with 30 colored plates and 180 fine woodcuts. By Charles B. Nancrede, M.D., Ann Arbor, Mich Third Edition, based upon the last edition of Gray's. 388 pages, small octavo, cloth or oil cloth, $2.00; medical sheep, $2.50. Published by W. B. Saunders, 913 Walnut street Philadelphia; London: Henry Renshaw; Melbourne: Geo. Robertson & Co.

A concise, attractive and convenient volume.

STRICTURE OF THE RECTUM. A Study of Ninety-six Cases. By Charles B. Kelsey, M.D., New York. 46 pages, large octavo. With twelve illustrasions, and classified tables of operations.

A masterly treatise of new methods by a recognized authority.

NEURALGIA. By E. P. Hurd, M.D., Newburyport, Mass. 153 pages. RHEUMATISM AND GOUT. By F. Leroy Satterlee, M.D., New York. 83 pages.

These volumes are regular issues of "The Physician's Leisure Library," published by George S. Davis, Detroit, and written by men in high standing in the profession.

EXCHANGES, PAMPHLETS, ETC.

Treatment of Strictures by Linear Electrolysis. Congress of Berlin.

Communication from Jack the Ripper. *Medical Mirror*, St. Louis.

New Treatment of Peritonitis. Lanphear, *Kansas City Med. Index.*

Varicocele. T. W. Kay, M.D., Scranton, Pa. *Cleveland Med. Gagette.*

Address in Hygiene. T. F. Mays, M.D., Philadelphia. From *Sanitarian.*

Nervous Clinics of Berlin. F. S. Crego, M.D. *Buffalo Med. and Surg. Jour.*

Relation of Eye-Strain to General Medicine. G. M. Gould, M.D., Philadelphia. *Medical News.*

Harper Hospital Bulletin, Detroit, Mich. Vol. 1, No. 1, June, 1890, bi-monthly, $1.00 a year.

Nervous Diseases of Reflex Origin. A. R. Baker, Cleveland, O. *Journal Am. Med. Association.*

Journal of State Medical Society, Little Rock, Arkansas. Vol. I., No. 1., July, 1890, $2.00 a year.

Detroit Emergency Hospital Reports. Hal C. Wyman, M.S., M.D., Detroit. Quarterly, 50 cents a year.

Resection of Cæcum for Carcinoma. N. Senn, M.D., Ph.D., Milwaukee, Wis. *Jour. Am. Med. Associaoion.*

Climatology and Diseases of Southren California. F. D. Bullard, M.D. (*Southern California Practitioner*), Los Angeles, Cal.

Dosimetric Practice, with Biography of Dr. Ad. Burggraeve. Also, Dosimetry in Colorado. J. E. MacNeill, M.D., Denver, Colo.

Corneal Transplantation from Rabbit's to Human Eye. A Singular Case of Injury (*Archives of Ophthalmology*). W. F. Smith, M.D., Chicago.

Popularizing Sanitary Science; Duties and Opportunities of the Medical Profession. Address by J. G. Orton, M.D., President New York State Medical Association.

Powdered Jequirity in the Eye (*Jour. Am. Med. Ass'n.*) Uric Acid Diathesis in Affections of the Eye, Ear, Throat and Nose (*Am. Prac. and News*). W. Cheatham, M.D., Louisville.

Comparison between Perineal and Suprapubic Cystotomy, with Report of Cases. A. Vander Veer, M.D., Professor of Didactic, Abdominal and Clinical Surgery, Albany Medical College. From ALBANY MEDICAL ANNALS.

New Methods or Pylorectomy (*St. Louis Courier of Medicine*). Also, Intestinal Anastomotic Operations with Segmented Rubber Rings. A. V. L. Brokaw, M.D., St. Louis. Transactions Southern Surgical and Gynecological Association.

MEDICAL NEWS.

Albany Medical College.

The sixtieth session of the Albany Medical College will open on Tuesday, September 23. The introductory address will be delivered at 12 M., in the amphitheatre of the College, by Prof. Maurice Perkins, A.M., M.D. ('70), of Schenectady.

The preliminary examination of medical students, under the law, takes place in the College, September 23–25, and that this law *applies to all colleges* in the state will be seen from the following:

LAWS OF 1889, CH. 468, AS AMENDED BY LAWS OF 1890, CH. 499—TO PROVIDE FOR THE PRELIMINARY EDUCATION OF MEDICAL STUDENTS.

Section 1. Before the regents of the University of the State of New York or the trustees of any medical school or college within this state shall confer the degree of doctor of medicine on any person, they shall require him to file with the secretary or recording officer of their university or college a certificate signed by the secretary of the University of the State of New York showing either that he possesses the degree of bachelor or master of arts, of bachelor or master of science, or of bachelor or doctor of philosophy, received by him from a college or university duly authorized to confer the same, or that during or prior to the first year of his medical study within this state, he passed an examination conducted under the authority of the regents of the University of the state of New York or by the faculty of a medical school or college entitled to confer the degree of doctor of medicine, in accordance with the standard and rules of said regents in arithmetic, grammar, geography, orthography, American history, English composition, and the elements of natural philosophy; or in their substantial equivalents approved by the said regents, or that he possessed qualifications which the regents considered and accepted as fully equivalent to the above-named qualifications.

§ 2. This act shall not apply to persons who have already entered upon the prescribed three years' study of medicine, nor shall it alter the time of study or the course of medical instruction required to be pursued in the medical colleges of this state by existing statutes.

EQUIVALENTS ALLOWED UNDER THE PRECEDING LAW AND OTHER INFORMATION REGARDING THE REGENTS' EXAMINATION.

A certificate of having successfully completed a full year's course of study in any college or university under the supervision of the Regents of the university, or registered by the regents as maintaining

a satisfactory standard; a certificate of having satisfactorily completed a three years' course in any institution subject to the visitation of the regents, or registered by the regents as maintaining a satisfactory academic standard; a regents' diploma; pass-cards issued in the regular regents' examination for eight studies, two of which have been taken from each of the four preceding groups, or a regents' certificate for any ten studies.

CERTIFICATE WITHOUT EXAMINATIONS.—Candidates for a medical students' certificate having the degree of master of arts, of bachelor or master of sciences, or of bachelor or doctor of philosophy, received from a college or university duly authorized to confer the same; or having credentials which can be accepted in place of an examination under the foregoing rules, shall send their credentials to "University of the State of New York, Examination Department, Albany, N. Y." They will be examined and returned at once, and if accepted, a medical student's certificate will be sent with them. If the certificate be delayed for verification of the credentials, when issued it will be dated from receipt of credentials, so that the candidate will lose no time.

Candidates should notify the regents' office, at Albany, at least ten days in advance, stating at what time and in what studies they wish to be examined. They will at once be assigned the most convenient time and place.

One of the examinations will be held in Albany September 23–25, 1890, in order that students may be put to no unnecessary inconvenience or delay.

THE ALBANY COLLEGE OF PHARMACY opens on October 6. Prof. Alfred B. Huested, M.D. ('63), delivers the opening address.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The eighteenth annual meeting will be held at Charleston, S. C., Tuesday, Wednesday, Thursday and Friday, December 16, 17, 18 and 19, 1890. The preliminary circular has been issued. Address Irving A. Watson, M.D., secretary, Concord, N. H.

TRI-STATE MEDICAL ASSOCIATION.

The second annual meeting of the Tri-State Medical Associa- of Alabama, Georgia and Tennessee will be held in Turner Hall, Chattanooga, Tennessee, on October 14, 15 and 16. It promises to be one of the most successful, profitable and entertaining meetings ever held in the South.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

At the annual meeting in Philadelphia, September 16, 17 and 18, Albany was represented by Dr. J. P. Boyd, who read a paper entitled "Some Facts Relating to the Diagnosis and Treatment of Placenta Previa;" by Dr. Albert Vander Veer, "Some of the Difficulties Met with in Abdominal Surgery, as Illustrated by Cases Taken from Personal Records;" and by Dr. F. Townsend, "Report of Gynecological Cases Treated with Electricity, with Remarks." Papers were also read by Dr. W. W. Seymour, of Troy, and other distinguished specialists.

THE AMERICAN ORTHOPÆDIC ASSOCIATION opened its fourth annual convention in Philadelphia on the same date as above. Dr. De Forest Willard, of Philadelphia, delivered the president's address.

PERSONAL.

—Drs. Henry Hun and John M. Bigelow have returned to Albany, after their sojourn in Europe during the meetings of the British Medical Association and of the International Medical Congress in Berlin.

The next meeting of this mammoth International Congress will be held in Rome.

—Ephraim Cutter, M.D., LL.D., F.S.Sc., at the International Congress at Berlin, read five papers, as follows: "Electrolysis of Myoma," proving his priority over all others; "Food in Fibroids," and "Cutter's Stem Pessary," before section of gynecology; "Food and Tubercle," before section of Pathology; "Physical Causes of Heart Disease," before section on Internal Medicine. He also spoke before Von Leyden's section on "Tubercle," by invitation.

He was one of the few Americans in the three hundred elected from six thousand to be presented to the German court.

He writes that he was treated with more courtesy by the Germans, where his ideas as to bacteriology are different from theirs, than by anybody else. He found people that knew him from all parts of the world.

ALBANY

MEDICAL ANNALS.

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PROGRESS IN THE PHARMACOPŒIA.

INTRODUCTORY ADDRESS TO THE TENTH COURSE OF THE ALBANY COLLEGE OF PHARMACY, OCTOBER 6, 1890.

BY A. B. HUESTED, M.D., ALBANY, N. Y.,
(*A. M. C.*, '63.)
PROFESSOR OF BOTANY AND MATERIA MEDICA IN THE ALBANY COLLEGE OF PHARMACY.

This evening we bid you welcome to the tenth course of lectures in the Albany College of Pharmacy.

The year will complete the first decade in the history of this institution. Has it occurred to many of you what a history these years have?—how much there is in them, and what changes have been wrought, not with respect to this college, or the world at large (though the changes here have been great), but with respect to Pharmacy, the profession or calling which you have come here to study?

The period of which we speak is bounded at the further end by the Pharmacopœial Convention of 1880, and at this end by that of 1890, two of the most important of these conventions ever held in the United States. From the first convention of 1820 to that of 1880, no event of marked prominence in the world of pharmacy occurred to disturb these peaceful and somewhat monotonous decennial periods. Interest in these conventions seemed to be confined to a few physicions and one or two pharmacists. The conventions were supposed to be composed of one or more delegates from each incorporated medical college, college of pharmacy, and incorporated medical and pharmaceutical associations. Never, however, had they excited any thing like a general interest. Delegates from the various bodies were conspicuous by their absence, even if appointed, and

the sessions of the conventions were attended by a few of the faithful, and excited but little comment or attention. The great public never heard of the U. S. P., and but few pharmacists or physicians knew of other guide than the Dispensatory. Do not infer that disrespect or non-appreciation is thrown upon the men of these early conventions. They were composed of some of our best men, and their work is deserving of much commendation. These facts are mentioned only to show the lack of general interest in Pharmacopœial conventions prior to 1880.

The first Pharmacopœial Convention was held in 1820. In 1830 a misunderstanding occasioned two conventions, one in New York of ten delegates, and one in Washington of thirteen delegates. At the convention of 1840 harmony prevailed; twenty two delegates were present, and a committee of revision of seven members was appointed. In 1850 thirty-two delegates were present, and a committee of four appointed. In 1860 thirty delegates were present, and a committee of revision of nine appointed. At the convention of 1870 sixty delegates were present, and the committee of revision was increased to fifteen members. Important and material changes in the work were outlined in the instructions given to this committee, but these instructions were not followed. When the convention of 1880 assembled, much more interest was evinced than had ever been manifested, and long discussions were held upon the subject of weight and measure between adherents of the metric system, of parts by weight, and the retention of the old methods of weight and measure. The adherents of neither party were strong enough to carry their point alone, and the medium party, or advocates of parts by weight, drew enough from the other two to carry its point. The convention was composed of seventy-seven delegates, and a committee of revision of twenty-five was appointed to carry out its dictates.

The Pharmacopœia of 1880, is the result of untiring and wise labor on the part of this committee, and is a marked improvement in the character of the book over previous issues.

When the Pharmacopœia was first thought of, the medical fraternity were mostly, if not entirely, interested in it. With advancing time pharmacists began to feel that they had an interest in the work, and so thoroughly has this thought engrafted itself upon them that they now outnumber the physicians in the conventions and upon the committee of revision.

The convention of 1890 has far exceeded all preceding ones, not only in numbers, but in the importance of the questions brought before it. The convention was composed of 174 delegates in actual attendance, and interested spectators swelled the number to over 200. They came from all parts of the Union, and from medical and pharmaceutical colleges and associations. Twenty medical colleges were represented by thirty-eight delegates, and twenty-one pharmaceutical colleges by fifty delegates; eighteen medical societies had thirty delegates present, and twenty-five pharmaceutical societies had fifty two present. The medical department of the United States service was represented by four delegates. Thus, 72 delegates represented medical and 102 pharmaceutical interests.

The question of greatest moment brought before this convention was that of weight and measure for the preparations of the Pharmacopœia. The convention of 1870, in its instructions to the committee of revision, included the following:

"*Resolved*, That the measures of capacity be abandoned in the Pharmacopœia, and that the quantities in all formulas be expressed both in weights and in equal parts by weight.

"*Resolved*, That the committee of revision be instructed to include some part of the metrical system in the officinal weights and measures."

This committee of revision, in the preface of its book, said:

"The subject of weight and measure has been carefully considered by the committee, and it has been determined to adhere to the old standard of Troy weight, which is now universal with the pharmacists of the United States. That this may be understood, the same specifications have been retained as in the last revision. An addition that has been made to the present Pharmacopœia is an exposition, at the end of the book, of the value of each specific weight in fractional parts, presenting the full table of Troy weights. A similar table of liquid measure is also given."

As an excuse for not complying with the directions of the convention to abandon all measures of capacity and express all formulas in weight and parts by weight, they say:

"To execute such directions entails the use of a metrical system not employed in this country or England, and which would have to be constructed for the purpose. Moreover, such directions were not anticipated in any of the revisions handed to the committee, and to institute such extended experiments as would cover the whole ground of the directions of the committee would entail so much expenditure of

time, labor and cost as to render the plan impracticable."

This is stated to have been the unanimous view of the committee, and they were fully justified in not undertaking such an Herculean task as had been imposed upon them.

During the time intervening between 1870 and 1880, various members of the American Pharmaceutical Association on the Pharmacopœial committee, and especially Charles Rice, of New York, did this transition work, and virtually carried out the instructions of the convention of 1870; and when the convention of 1880 repeated these instructions, it was possible for them to be complied with.

The Pharmacopœia known as that of 1880, issued in 1882, is the result of this committee's labors, and will be the guide of the pharmacist till the issue of that directed by the convention of 1890 is published. This work was a great improvement over every previous issue and a marked departure from old established principles in expressions of formulas. Its appearance was greeted by both favorable and adverse criticism, the latter, however, being almost wholly confined to one point — the abandonment of volume. For eight years, however, it has been the legal standard, and, we believe, has been followed by the better class of pharmacists throughout the country.

Recent years have, however, developed a feeling against the weighing of liquids, with the result of a change being ordered by the last convention, and liquids are again to be measured, the metric system of weight and measure to be used. Time will tell if it is destined to be more acceptable than the method it supersedes. That the metric system of weight and measure is the most perfect of any system in use but few, if any, will deny; that it will be more acceptable to those interested, and more generally followed, can be determined only by time. Could the metric system become universal, there seems no question of the advantages to be derived; should it not, then it would only introduce one more system of weight and measure among too many already in use. By many it is believed that it has come to stay, and that its use will become more and more extended every year. Whether it does or not, it is wise for all who can to become familiar with it. Those who do not will fail to keep abreast of the age, and must be left behind.

Another question of much import discussed at the Pharmacopœial Convention was the standardization of drugs and preparations. The Pharmacopœia of 1870 says that "opium, when dried at 212° until it ceases to lose weight, should yield at least ten per cent. of morphia by the officinal

pocess." Cinchona bark and the officinal varieties, yellow and red, are directed to be such as contain not less than two per cent. of the proper cinchona alkaloids.

These are the only crude drugs concerning which a specific requirement is made touching quality, and these requirements were not difficult to comply with.

The Pharmacopœia of 1880, though not adding greatly to the list of drugs with special requirements as to quality, raised and made more definite the specifications of opium and of cinchona bark, fixed a limit of resin in jalap and scammony, attempted a standardization of tincture nux vomica, and dropped elaterium and inserted the active principle, elaterinum. It also gave brief and concise descriptions of all crude officinal drugs, gave the rational formula of all chemicals according to the new and old notation, with atomic weights and physiological and chemical tests, in all cases where they could be given. In fact, the book was made a desirable one, and has been more widely distributed and become better known than any previous issue.

The changes directed by the convention of 1880 were advances, and marked, too, over previous conventions, and it is generally conceded that the directions of the convention of 1890 will, if carried out, improve the Pharmacopœia much beyond its present condition.

The use of the metric system and measuring instead of weighing liquids in the manufacture of preparations will make a complete change from the methods now in use—will necessitate the pharmacist having, in addition to his present weights and measures, those of the metric system.

Because the formulas of the Pharmacopœia are to be expressed in metric weight and measure, it must not be supposed that those now in use will be abandoned. The physician will still call for ounces, pounds and pints of medicine, and write his prescriptions in parts of the old apothecaries' weight and measure. The few physicians who now use the metric system in writing prescriptions are likely to have some additions to their ranks, but the majority will continue in the old way. The use of the metric system will not become universal until made compulsory. Much can be said in favor of and against the system, but there is not time to discuss it here.

Much can be and is said against present weight and measure. Two or three examples will illustrate. Statistics show that 1,000 bushels of barley in Kansas become 1,500 bushels in New Orleans. The Kansas bushel is 48 pounds, and the New Orleans 32 pounds. 1,000 Kansas bushels of

rye, at 56 pounds, become 1,750 pounds at New Orleans, at 32 pounds. One gallon of milk in Vermont has 231 cubic inches, while in New Hampshire the gallon has 282 cubic inchas. The more general use of weight in estimating the various commodities of commerce is one argument in favor of weight over measure.

The question of standardization was discussed very freely and fully by the convention, and after this free and full discussion the question was left in the same shape as introduced. The old committee of revision reported to the convention fourteen sections of general principles to guide the next committee in its work. Two of these sections referred to standardization of crude drugs and galenical preparations. These were as follows:

"It is recommended that assay processes be appended to the descriptions of the more energetic or otherwise important drugs containing active principles, provided the therapeutic value of the drug depends upon the amount of these principles, and provided, also, that these principles can be assayed and identified with reasonable accuracy and without requiring complicated processes. The committee may attach a note stating the usual percentage of the active principles in good commercial samples of the drug, and if it be found feasible, it may attach a requirement that the drug shall not be used unless it conforms to the stated limits.

"The committee may attach assay processes to such galenical preparations as fluid extracts, tinctures, etc., but it shall omit requirements of a definite strength of percentage of active principles, except in the case of drugs for which an upper or lower limit, or both of active principles is prescribed."

You will see by these sections that the committee have it in their power to enlarge the list of assayed crude drugs, under certain restrictions. No one will deny that this is not a long step in advance and also one which is surely needed. The quality of a drug is second only in importance to the question of identity. We speak more particularly of vegetable drugs.

Chemistry has advanced to such an extent that the amount of any proximate principle or active constituent of an organic substance may be quite definitely ascertained.

By the instructions you will see that the committee are evidently expected to add to the list of assayed drugs, the more particularly by reason of the unquestioned assent of the convention to this section.

The section on assay processes for galenical preparations caused as much and as interested discussion as that of weight

and measure. It was, however, adopted by the convention just as introduced by the committee.

There are on the committee of revision earnest and cautious men, to whose judgment, let us hope, we can trust the assay of preparations, hoping that they will go only as far as they have facts to justify them.

The balance of instructions to the committee relates to chemical tests, nomenclature, specific gravity, proprietary or patented articles, list of reagents, tables, etc., etc. It is directed, also, that a definite date be announced for the new work to go into effect.

Aside from what we have spoken of, chemistry has been making long strides, and has brought to light new compounds almost innumerable. If the pharmacist of ten years ago could be ushered into the present, without having gone through the intervening time, he would be thoroughly bewildered by antipyrin, acetanilide, antifebrin, aristol, bromoform, exalgine, hydrastinine, iodol, cocaine, orexin, phenacetin, pyrindine, salol, sulfonal, thiol, and, lastly, pyoktanin. This list does not begin to include all; only the more frequently used new remedies are mentioned. Hundreds of others have been produced, mainly remedies to relieve pain, reduce fever, produce sleep, or antiseptic in action. All are heralded with great flourish. To read the recommendations of some is like reading a fairy tale.

All these, however, no matter if they prove of value or have none, show that changes are taking place, and who will say that there is not advance?

The pharmacist of to-day must keep his intellect in working order, know of and be able to furnish any or all new things called for, being careful not to overstock, as they are generally high priced, and he may be left with considerable money permanently invested.

The present is a period of change. Much of this is true advance. Let us hope all may prove somewhat so.

You will see by the catalogue that the college has made changes—it is believed improvements. A pharmaceutical laboratory for the practical carrying out of the work in this department is to be opened this term, and instruction and work in it to be carried on during junior and senior years. This will certainly be a change, and it is just as certainly an advance—a progression.

Another new feature this year will be the presentation of specimens of all crude drugs, except, perhaps, the more common, lectured upon. Another change, which may be called an advance, is in one way a retrogression. It is not

mentioned in the catalogue, yet is, I believe no less intended to be entered upon. It is proposed for the medical college, and many literary colleges are adopting it. I refer to a more extended system of quizzing. This is the name applied to it in educational institutions of the higher grade; ordinarily it is called recitations. These are beneficial in serving to impress facts more securely upon the mind, correct wrong impressions, and are incentives to more thorough work.

We live in an age of change, called also an age of progress. The former it certainly is; the latter is often questionable. Thus we can see in the pharmaceutical world and in the college progress has been made during the last ten years.

It is not alone, however, in these things that progress obtains. If you look about you, it will be seen everwhere, in every thing. Progress — development — seems to be a natural law governing the world and every thing in it and on it. With inorganic and with organic material, and beings not furnished with thinking and reasoning powers, this natural law of progress works out, unaided by will, the development of its agents. Man having volition and reason, and the example of progress in the lower order of things, must develop, must progress, by his own will and exertions.

The education you seek here will, if diligently sought, be acquired, enabling you to better judge between change and progress. Your own efforts are of as much value in the acquisition of knowledge as external aids—are, in fact, indispensable, are always required; external aids may be dispensed with.

On behalf of the trustees and faculty, I again bid you welcome, and express the hope that our anticipations may be realized in the work of the session before us.

ABSTRACTA.

Mushrooms and Mushroom Poisoning.—As the name "toadstool" is founded upon a popular error, no one ever having seen a toad use a fungus for a stool, I shall only use the term "mushroom," prefixing it with the term "edible" or "poisonous."

Stevenson enumerates as growing in Great Britain 1,218 species of mushrooms—that is, fleshy fungi having a stem and cap.

We probably have a larger number in this country, where the study of mycology is yet in its infancy, and only portions of our territory have been thoroughly investigated.

Of this great number it is safe to say that the majority are harmless; very many are too small or too quickly perishable to be of use as food; many are known to be edible and only a few poisonous, although quite a number will cause distressing and alarming symptoms.

Mr. Palmer, of Boston, to whom we owe the first, and, as yet, the only series of colored plates of edible and poisonous varieties issued in this country, and who has practically and personally tested the edible qualities of mushrooms as much as any one about here, acts upon the belief that the fatally poisonous varieties will all be found belonging to a single and quite easily recognized species, namely, the Amanitas.

Fig. 1.

Besides the mushroom proper, there are many others of the fungi which are edible and easily recognized—namely, the Puff-Balls, the Clavarias, and the Fistulina Hepatica. There are still others, including the Morels, of which I shall not have time to speak.

The Puff-Balls (Fig. 1) are very easily recognized, being round, and when ripe emitting their spores in the form of dust. These are good when fresh, before, the inside has changed from the purest white; they can be sliced, cooked in batter, and are then delicious. These are called the omelette mushroom, on account of the resemblance in taste to that dish. When eaten in proper condition, none are poisonous, although with some a slight cathartic action is produced.

The Clavarias (Fig. 2) are quite common in the woods, and are readily known; they resemble a piece of branching coral in

miniature. Stewed or cooked with butter, they make a good addition to any joint.

The Fistulina Hepatica (Fig. 4), also known as the Beefsteak Mushroom, is red in color; in shape it looks like a tongue, and grows on oak and chestnut trees. It is not common. Professor Farlow tells me that he found several last year, and doubted if I would know the difference from a beefsteak if I had eaten them after they had been cooked. I never found them until last season, and then they were too small for me to test their edible qualities.

FIG. 2.

A Mushroom we will understand to be a fungus that has a stem and cap—*i. e.*, is umbrella-like in shape—and is not woody in texture.

The cap, or pileus, is the expanded top, and rests upon the stem. The under side of this cap bears either gills, tubes or teeth. All these, gills, tubes and teeth, are covered by a thin membrane, which again is covered with the spores, which are the reproductive bodies, and appear like fine dust when deposited upon any thing lying under the cap. It has been estimated that

the number of spores in a single plant may exceed 10,000,000. Before the cap of the mushroom is fully expanded, the under side is covered by a membrane known as the veil; a portion of this is sometimes left upon the stem, and it then forms the annulus, or ring; often this is movable. With some varieties the entire plant, before issuing from the ground, is enclosed in a membrane, portions of which, remaining upon the cap, form warts, and a part remains about the base of the stem, forming a sheath or volva. This is very important, as the presence of these warts and the volva is a guide to distinguish the deadly poisonous varieties.

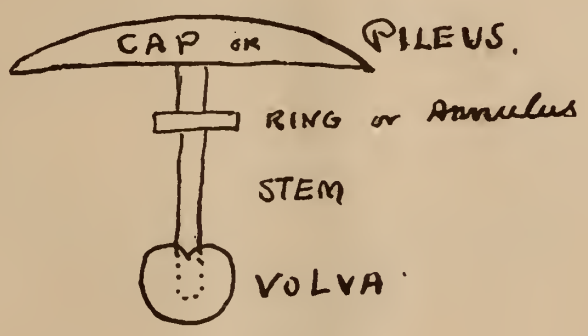

FIG. 3.

Let us take the first mushroom we find; the under side of the cap has teeth or spines, and belongs to the genus Hydnum (Fig. 5). There are no poisonous species, but on account of the toughness and woody character of many, Dr. Badham says, "to eat must depend upon the united consent of the stomach and teeth." The esculent variety is the Hydnum repandum, orange in color, two to five inches across, flesh white, turning yellow when cut, spines pale yellow. There is no fungus with which this one is likely to be confounded; once seen, it is always remembered, and may be gathered fearlessly.

We next find a mushroom with a spongy look underneath, due to myriads of fine tubes; this is a Boletus (Fig. 6), a family which contains no members which are fatally poisonous. Vittadini says this "is not strictly the case, though many species hitherto reputed unwholesome, or worse, appear to lose their bad qualities by drying." Those having high-colored or red tubes have been considered poisonous, but no fatality is recorded. The mild-colored ones, with white, yellow or green tubes, if pleasant to the taste, are safe to eat, and sliced and fried in batter make a fair addition to our table.

This time our mushroom has neither teeth nor spines nor tubes, but has the radiating gills (Fig. 7); we are approaching dangerous ground, for among these are many whose poison is fatal.

There is no rule by which the good can be distinguished from the bad; this should be strongly impressed on the mind. That the skin of the cap peels readily, that they change color when

cut or bruised, that they do not tarnish gold or silver with which they are boiled, that the stem comes readily out of the cap or grows at one side, and a dozen other reasons are all equally fallacious; there is no such rule which has not its exception, and here an exception may mean death. Safety lies in knowledge—positive knowledge. You should know positively the variety or varieties you venture to eat, and eschew all others. You should fix firmly in your mind the characteristics of those you venture to eat, so firmly that you can pick them from a basketful of all kinds.

FIG. 4.

The gill-bearing mushrooms belong to the family known as the Agaricini or Agarics; this is again divided into thirty or more genera, a division which concerns the botanist, but to us is of no value. A division which is of practical use to us is one made by noticing the color of the spores; this can be seen by an examination of the gills with a lens, or better by removing the stem, placing the cap, gill downwards, on a piece of glass, and letting it remain over night, although in some cases an hour or so will answer. The spores will be found deposited on the glass, and will show the radiation of the gills. When several mushrooms

grow together and overlap one another, the spores are often found on the caps of the under ones.

Classifying the Agarics by the color of the spores, we have the following divisions:

I. Leucospori, or white-spored agarics.
II. Hyporhodii, or pink-spored agarics.
III. Dermini, or brown-spored agarics.
IV. Pratellæ, or purple-spored agarics.
V. Coprinarii, or black-spored agarics.

FIG. 5.

I. Among the Leucospori, besides many others of which I shall not speak, will be found the following genera: (1) Agaricus, (2) Lactarius, (3) Russula, (4) Cantharellus, (5) Marasmius, which contain both edible and poisonous species. The larger forms of these genera are rather easy of identification.

(1) Agaricus has three sub-genera which particularly demand our attention, namely, (*a*) Amanita, (*b*) Lepiota, (*c*) Pleurotus.

(*a*) The Amanitæ are distinguished from all others in having warts upon the upper surface of the cap, a volva and usually a ring. While some varieties are edible and much sought for, others are highly poisonous. These are the handsomest of our mushrooms, and are oftenest eaten by careless gatherers.

Notwithstanding the good character some varieties are given, a wise caution should prevent any but the experienced mycologists from essaying their edible qualities.

(*b*) The Lepiota have one variety which can be mistaken for nothing else—the Lepiota Procerus or Parasol mushroom. It is found in lawns and open fields, grows to an enormous size, has a long stem, and is easily recognized by the brownish scaly top, the ring which is movable, and the absence of a volva. The scaly top differs from the warty top of the amanita; the warts can easily be removed, not so the scales which are simply the cap itself ruffed up.

(*c*) Pleurotus has one variety easily recognized; it is found only growing upon the Elm tree and is edible, but to my taste of poor flavor.

FIG. 6.

(2) Lactarius is a genus known by the milky juice which exudes from the gills and from the cap and stem when broken. Lactarius Deliciosus, or the Orange-Milk Mushroom, is a highly esteemed variety. Badham says "there is but one fungus which it in any way resembles, and as that one, Lactarius Torminosus, is acrid and poisonous, the gatherer must pay attention to the following characteristic difference between the two, namely, that the milk of the Lactarius Deliciosus is *red and subsequently turns green*, while that of Lactarius Torminosus is *white* and *unchangeable*."

(3) The Russulæ resemble very much the Lactarii except that they have no milky juice; they are easily remembered, when once pointed out, by their extreme brittleness, stout spongy stem and dry texture. They have some of the best edible, and also some poisonous varieties.

If you are sure you have a Russula it may be eaten, if, on trial of each specimen, a piece of the stem is not acrid or unpleasant

to the taste; this rule holds good for the Lactarii. These two genera are destitute of a ring.

(4) Cantharellus is a very easily known genus, the stem being confluent with the cap, the gills thick and swollen, resembling more the veins of a leaf than the usual gills. Cantharellus Cibarius, or the "Chanterelle," is a bright yellow throughout, and has the odor of apricots; it is held in high esteem by fungus eaters.

(5) While all the foregoing white-spored mushrooms are fleshy and soon become putrescent, Marasmius differs from them all, in that they wither in drought and revive when wet. They can be dried, and will keep for years, retaining all their good qualities, and when moistened they swell to their original size, and are then ready for cooking. We have a very common variety which is esculent and easily recognized, namely, the Marasmius Oreades,

Fig. 7.

or Fairy Ring Champignon, also called the Scotch Bonnet. Its little buff head is seen on every lawn. It grows in segments of a circle, giving it its name of Fairy Ring. When once seen and carefully studied, it should be mistaken for nothing else, although it is sometimes accompanied by those of about the same size, whose only resemblance is the buff color of the cap.

II. and III. Among the pink- and brown-spored agarics, are some which are edible, but their qualities had best be tested only by the professed mycophagist.

IV. The purple-spored agarics give us the two varieties which are so well known throughout the world and so highly esteemed for their edible qualities, namely, the Agaricus Campestris, or Meadow Mushroom, and the Agaricus Arvensis, or Horse Mushroom These so closely resemble one another that they are sold indis

criminately, and for the purpose we have in view they may be treated as one and the same. They are found in meadows, never in woods; their gills are of the most delicate flesh pink when they first appear above the ground, changing soon to a darker shade, finally becoming a dark purple—almost black. The cap is dry, silky or downy, globular, with the margin united to the stem by the veil, which soon becomes a ring about the stem, when the cap expands, the latter being bell-shaped at first, and then almost flat. The stem is nearly solid, separates easily from the cap, and there is no volva.

It must be remembered that the volva is only found in the Amanita of the white-spored, and the Volvaria of the pink-spored varieties, which latter we have not considered.

The Pink Gill is the only species which is successfully propagated by man; vast quantities are raised in the caves about Paris; the young ones—that is, with cap unexpanded—are the button mushrooms of commerce. Many are raised by the market gardeners about Boston.

It is believed by many that the Pink Gill is never found except where cattle have been pastured, or the grass fertilized by their manure, the passage of the spores through their alimentary canal being in some way necessary for their fertilization.

The Horse Mushroom sometimes grows to an enormous size; a specimen has been reported weighing fourteen pounds. These two, Pink Gill and Horse Mushroom, are the only ones of the purple spored which had better be essayed, as other varieties are reported as causing symptoms affecting the nervous system.

V. Of the black-spored, only those whose gills deliquesce into an inky fluid are considered as edible; of these there are several varieties; to only one shall I call your attention; it is so common and its characteristics so well known that a mistake seems incredible. I refer to the Coprinus Comatus, or Shaggy Mane Mushroom, known also as the agaric of civilization, as it is found on dumps, dust heaps, and about lawns on newly-filled land. The cap, or pileus, is first oval and hard, the margin soon separates from the stem, leaving a ring, the margin quickly turns to a bluish black, and, after expanding, the whole plant dissolves into an inky fluid. The color is white to a brownish tint, the cap wooly or shaggy, caused by the skin peeling and curling up in small sections; the stem is hollow. It is used in all stages to make ketchup, but to stew or broil it should be taken before it begins to turn black.

The only mushrooms of the Agaric family which I think you are safe in trying are the Parasol, Elm Tree and Fairy Ring of the white spored; the Pink Gill of the Purple Spored; the Shaggy Mane of the black spored.

These five varieties of Agarics, with the mild-colored Boleti, the spiny Hydnum, the Puff Balls and the Clavarias, will give

you sufficient variety of fungoid esculents, until such time as you become a student of mycology and a professed mycophagist.

Let us recapitulate :

TABLE No. 1.

Not Umbrella Form..	Puff Balls.	Edible.
	Clavarias.	
	Fistulina.	
Umbrella Form.....	Spines or Teeth = Hydnei.	
	Tubes or Pores = Boleti.	
	Gills = Agaricini.	

TABLE No. 2.

Agaricini..	Leucospori,	or white-spored	Agarics	(see Table No. 3).
	Hyporhodii,	or pink "	"	not considered.
	Dermini,	or brown "	"	
	Pratellæ,	or purple "	"	The Pink Gill.
	Coprinarii,	or black "	"	The Shaggy Mane.

TABLE No. 3.

White Spores..	Agaricus.	Amanita (deadly poison).
		Lepiota—The Parasol.
		Pleurotus—The Elm Tree.
	Lactarius.	Eaten on taste.
	Russula.	
	Cantharellus.—The Chantarelle.	
	Marasmius.—The Fairy Ring.	

TABLE No. 4 (*Edible*).

Without Gills.....	Puff Balls.	
	Clavarias.	
	Fistulina.	
	Boleti.	
	Hydnum Repandum.	
Without Gills..	The Parasol (lepiota procerus).	White spores.
	The Elm Tree (pleurotus ulmarius).	
	The Fairy Ring (marasmius oreades).	
	The Pink Gill (agaricus campestris).	Purple spores.
	The Shaggy Mane (coprinus comatus).	Black spores.

The deadly poisonous AMANITA has	white gills.
	white spores.
	warts on cap.
	a ring.
	a VOLVA.

The *poisons of mushrooms* may be as varied as the species from which they are derved, but the symptoms arising therefrom can be classified under two heads : (*a*) those which occur soon after ingestion, within an hour or so, and (*b*) those whose appearance is retarded for eight to twelve hours. The early symptoms are those of an irritant to the alimentary canal, as vomiting, purging, and the consequent exhaustion ; and unless the quantity taken was excessive, or the taker debilitated, the after-effects would not be serious, or at least not fatal ; not so, however, if the symptoms come on later ; here we have the effects of an irritant narcotic ; purging and vomiting are followed by giddiness, vertigo,

precordial distress, labored respiration, contracted pupils, coma and death, the latter having occurred as early as thirty-six hours after the fatal repast. Most authorities agree that these more serious symptoms are only caused by the Amanitas, which you will remember as among those having white gills and spores. Some go so far as to state that it is only from these that fatal results have occurred.

To satisfy myself about this, I examined the literature of the subject, as found in the medical journals of this country, and have tabulated all the cases I could find recorded.

For ten years Mr. Palmer gave much time and study to mycophagy, and the results of his investigations he kindly placed at my disposal. He collected thirty-three cases, twenty-one of which were fatal. From other sources—American medical journals, brother practitioners and the daily press—I have forty-four cases, of which fourteen were fatal.

From a study of the cases where the symptoms developed after eight or twelve hours, and more than a very small amount of the fungus had been taken, the treatment by the usual method of giving emetics, cathartics, astringents or stimulants, combined or alone, has, I find, been universally unsuccessful; but when the chief reliance has been placed upon *atropia*, the results have been most brilliant. It is true that I have the records of fatal cases where this drug had been given, but in such small doses (1-180 to 1-60 grain), that I was not surprised at the result.

The symptoms indicate a poison whose action is like that of morphia, and if it is to be combated successfully, the same treatment as used for an overdose of that drug must be given, namely, atropia in full doses, one-third of a grain at a time, for instance. One grain of atropia has been given in opium poisoning with success. I have treated at the Boston City Hospital, and reported, a case of poisoning by morphia, where I gave three-fourths of a grain of atropia—one-half grain at once, and one-quarter grain in ten minutes—and saved the patient. Wharton and Stillé state that while one-sixth grain of atropia has caused alarming symptoms, death has not been caused by a grain; therefore, I think that when we have present as powerful a poison as that found in the mushroom, we had best use the antidote in moderately large doses.

The treatment by atropia is based upon the perfect antagonism which exists between this drug and the poison of Amanitas, which has been separated by Professor Schmiedelberg, and named muscarin. The poison has been separated by others and variously named, according to the variety from which it was obtained. The merest trace of this alkaloid will arrest the pulsation of a frog's heart; and even after four hours Lauder Brunton states he has caused it to pulsate again by a minute quantity of atropia being brought in contact with the organ.

The course of treatment which has usually been followed in severe cases of mushroom poisoning has been as efficacious and successful, and based upon as scientific principles, as the answer to the statement said to have been made by a southern professor, who, lecturing upon tannic acid, remarked: "And by the by, gentlemen, tannic acid is the antidote to the poison of the mushroom; can any of you explain its action?"

"T–t–th–think I can, professor."

"Well, sir, explain to the class the chemical reactions that occur, and how tannin acts as an antidote to the poison of the poisonous mushroom."

"It f–f–forms the t–t–tannate of mush, and leaves room in the stomach!"—*Extracts from an Article by Edward J. Forster, M.D., of Charlestown, Mass., in Boston Medical and Surgical Journal. Also read before the Massachusetts Medical Society, June 11, 1890.*

Skin from Puppies in Skin-Grafting.—Dr. M. E. Van Meter (*Annals of Surgery*, August, 1890.) A boy, fourteen years old, sustained extensive burns. Grafts were taken from two young puppies of the Mexican hairless breed. The puppy-grafts proved to be superior to the human grafts, also used in this case; a greater proportion of them "took," and their subsequent rate of growth was much faster.

In this connection the editor refers to a similar case, in the *Lancet*, March 15, 1890, by Mr. Alexander Milro, of Edinburg.

A boy, ten years old, presented an extensive ulcer on the left leg, resulting from a burn. A young black and white greyhound, seven days old, was killed with chloroform, and, the whole of his anterior abdominal wall and flanks having been shaved, the flap of the skin thus marked out was dissected up, taking the entire thickness, leaving the subcutaneous fat. The skin was cut into strips, measuring six inches long by half an inch broad, which were firmly pressed into the previously cleansed ulcer in the long axis of the limb. Smaller grafts, about an inch square, were used to fill in spaces left by the larger ones. A considerable area over the inner side of the knee still remained bare; to cover it, the skin from the pup's tail was dissected up, unshaven. Over these grafts an antiseptic dressing was applied. Cicatrization was complete in six weeks. The favorable results are probably due to the age of the animal furnishing the grafts.

One of Reed & Carnrick's extensive factories at Goshen, N. Y., was destroyed by fire on September 10th. This factory was devoted wholly to the production of their Soluble Food and Lacto-Preparata, and contained extensive and valuable machinery. They had considerable stock of these foods at their New York office, and consequently there will be no delay in filling orders. The factory will be at once rebuilt three times the size of the one burned, with machinery correspondingly enlarged.—*Dietetic Gazette.*

Albany Medical Annals.

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BOOK NOTICES.

TEXT BOOK OF COMPARATIVE PHYSIOLOGY, for Students and Practitioners of Comparative (Veterinary) Medicine. By Wesley Mills, A.M., M.D., D.V.S., Montreal. 476 illustrations, 636 pages, octavo, price $3.00. D. Appleton & Co., 1, 3 and 5 Bond Street, New York; Paternoster Square, London.

So different from man are most of the animals which the veterinarian is called upon to treat that only the absence of suitable works of a special character can justify the use of those that confessedly treat of man alone. Till within the last year the English-speaking student has been without a single work in his own language of the special character required. Within that period two have appeared —the excellent but ponderous "Physiology of the Domestic Animals," by Prof. Smith, and the very popular "Text-Book of Animal Physiology" by the author of the book now under consideration. Prof Mills now adds this smaller work, embodying the same plan as the book reviewed last November, but with greater specialization for the domestic animals.

The publishers have done their work in their usual elegant style.

DA COSTA'S MEDICAL DIAGNOSIS. Seventh Edition. Philadelphia: J. B Lippincott Company, Publishers.

This work has undergone a thorough revision. There is no work more helpful to a young practitioner than this one, which has already been pronounced by eminent critics "the best book on diagnosis extant."

ESSENTIALS OF DISEASES OF THE EYE, NOSE AND THROAT. Part I., Refraction and Diseases of the Eye, by Edward Jackson, A.M., M.D., Philadelphia. Part II., Diseases of the Nose and Throat, by E. Baldwin Gleason, S.B., M.D., Philadelphia. Saunders' Question Compends, No. 14. 118 illustrations, 276 pages, 12mo, cloth, $1.00; interleaved, $1.25.

Very attractive and desirable.

PHYSICAL DIAGNOSIS AND PRACTICAL URINALYSIS. An Epitome of the Physical Signs of the Heart, Lung, Kidney and Spleen. By John E. Clark, M.D., Detroit. 41 illustrations, 12mo, cloth, 200 pages; price $1.00. Detroit, Mich.: Illustrated Medical Journal Co., Publishers.

Examination of sputa, bile, blood, bacteria, quantitative estimation of urinary constituents, etc.

GARRETSON'S TREATISE ON THE DISEASES AND SURGERY OF THE MOUTH, JAWS, FACE, TEETH, AND ASSOCIATE PARTS. Philadelphia: J. B. Lippincott Company, Publishers.

Much important matter has been added to this second edition, together with numerous illustrations, which greatly increase its value to dentists, surgeons and physicians.

HYPODERMIC MEDICATION. By Bourneville and Bricon. Translated and emeded by Dr. Andrew S. Currie, Moorlands, Gloucestershire, Eng. Edited by G. Archie Stockwell, Detroit.

INTESTINAL DISEASES OF CHILDREN. By A. Jacobi, M.D., New York. Vol. I. and Vol. II. 266 pages. Detroit: G. S. Davis.

These are parts of the "Physicians' Leisure Library."

MEDICAL NEWS.

ALBANY MEDICAL COLLEGE.

The Albany Medical College began its sixtieth session on Tuesday, September 23, 1890. The exercises were opened in the amphitheatre of the College with prayer by Wesley R. Davis, D.D., of Brooklyn, formerly of Albany, and the introductory address was delivered by Professor Maurice Perkins, M.D. In discussing the theories in regard to matter, he mentioned the view of the old school of continuity that space is filled with material particles of the same substance as the visible material about us, and said that no one now

knows that it is not true. He stated the theories taught by Lucretius 350 B. C., and showed that modern teachings were materially the same.

President Harrison E. Webster, Union University, followed with a few words of congratulation to the students on the improvements in the course of study. He said he did not know of a school of medicine anywhere where, all things considered, better opportunities were offered than here He strongly urged the students to make the most of their advantages.

The new state law in regard to entrance examinations is this fall in operation for the first, and Regents' entrance examinations were held in the College building. Neither these requirements nor the added features in the college course seem to check the ardor of candidates for the profession of medicine, if one may judge by the fact that at the Albany Medical College the number of matriculants now enrolled exceeds the number enrolled at the same time last year by twenty-two!

Medical Society of the County of Albany.

SPECIAL MEETING ON THE DEATH OF DR. C. D. MOSHER.

The Society met in the Albany Medical College on Monday, September 29, 1890, at 11 A. M., in memorial session on the death of Dr. Cornelius D. Mosher. Present: Drs. W. H Bailey, O. D. Ball, J. P. Boyd, H. S. Case, J. L. Cooper, D. Fleischman, A. Fowler, S. H. Freeman, Wm. Hailes, Jr., Lorenzo Hale, H. Hun, A. Marsh, F. D. Morrill, S R. Morrow, W. H. Murray, D. V. O'Leary, C. H. Porter, S. A. Russell, J. H. Skillicorn, C H. Smith, W. G. Tucker, T. F. C. Van Allen, E. Van Slyke, and S. B. Ward.

Vice-President Fleischman announced the death of Dr. Mosher, and, on motion, appointed the following committee to prepare suitable memorial resolutions: Dr. S. R. Morrow, chairman, and Drs. W. H. Bailey, C. H. Porter, S. H. Freeman, and E. Van Slyke.

Dr. Morrow presented the following, which were adopted:

Whereas, This Society has received with deep regret the intelligence of the death of Dr. C. D. Mosher, a life-long and valued member; therefore,

Resolved, That as a Society we tender his family and friends our sincere sympathy in their bereavement; that we desire to put on record this evidence of our respect for his memory and our appreciation for his ability, his wide culture and his many kindly qualities of heart.

Resolved, That these resolutions be entered on our minutes and that a copy of them be transmitted to the family of the deceased and to the daily papers for publication.

Further remarks were made by Dr. S. R Morrow and by Dr. L. Hale. In reply to the suggestion that the Society attend the funeral in a body, Dr. Morrow explained that the funeral was private, and it would be better to defer to the wishes of the family.

A communication from Dr. C. M. Culver was read, expressing his respect for Dr. Mosher.

OFFICERS ELECTED.

At the annual meeting, held October 14, 1890, the following officers were elected: President, Dr. M. J. Lewi ('77); vice-president, Dr. J. D. Craig ('84); secretary, Dr. R Babcock ('84); treasurer, Dr. J. V. Hennessy ('84); delegates to State Society, Drs. O. D. Ball, Henry Hun, W. J. Nellis ('79), T. K. Perry ('75); censors, Drs. U. B. La Moure ('78), D. C. Case ('76), D. W. Houston, M. J Dwyer ('83), W. L. Schutter ('83).

New York State Medical Association.

The seventh annual meeting will be held October 22 to 24, in the Mott Memorial Hall, 64 Madison avenue, near 27th street, New York city. John G. Orton, M.D., president, Binghamton, also president of third or central district; Douglas Ayres, M.D., Fort Plain, vice-president, first or northern district; Matthew H. Burton, M.D., Troy, vice-president, second or eastern district; E. M. Moore, Jr., M.D., Rochester, vice-president, fourth or western district; Wm. McCollum, M D., Brooklyn, vice-president, fifth or southern district; E. D. Ferguson, M.D., Troy, secretary.

The State Commission in Lunacy have ordered that after October 1, 1890, there shall be no distinction between private and public patients in respect to the scale of care and accommodations, and that no private patient shall be admitted to state hospitals except on order granted by the State Commission. The charge made to the counties of the state for each patient in continuous custody shall be as follows: For the first three years or less, $4.25 a week; for any period of time exceeding three years, $2.50 a week. Th s includes all charges for food, clothing, breakage, etc. Another order provides for the comfortable, decent and quiet transfer of patients to state hospitals, including a new suit of clothes to each patient. The state has been divided into seven state insane asylum

districts. The commission issued orders last June guarding the insane from the service of legal papers, and preventing their execution of business or legal documents.

THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION will hold its session at Atlanta, Georgia, November 11, 12 and 13, 1890. President, George J. Engelmann, M.D., St. Louis, Mo ; secretary, W. E. B. Davis, M.D., Birmingham, Ala. The preliminary programme is issued. Members of the medical profession are cordially invited to attend.

PERSONAL.

—Dr. Israel I. Buckbee ('41), of Fonda, N. Y., celebrated his golden jubilee of medical practice on September 10th, the event being marked by a banquet given him by the Montgomery County Medical Society.

—Dr. John Scott Boyd Pratt ('88) was married at Honolulu, Hawaian Islands, August 7, 1890, to Miss Sarah Catherine Dickson. The doctor and his bride arrived in Albany on October 11, and are visiting with his brother at Greenbush Heights They expect to start for Europe next month.

—Dr. J. E. Brennan ('89) has completed his term as resident surgeon in the Albany Hospital, and is associated in practice with Dr. Ward, 135 North Pearl street, Albany. Dr. W. G. Murphy ('89) succeeds Dr. Brennan as resident physician and surgeon. Dr. W. H. Happel ('90) is senior assistant and Dr. J. W. Kniskern ('90) is junior assistant.

—Dr. Henry Z. Pratt ('87) is located at 302 West 116th street, New York.

—Dr. A. H. Bayard ('89), of Bath-on-the-Hudson, married Miss Orlena A. Hunting, daughter of Dr. N. Hunting, of Albany, October 15, 1890.

—Dr. H. W. Van Allen ('90), Springfield, Mass.

—Dr. A. G. Root ('90), Berlin, Germany.

—Mr. John W. Spensley, graduate of the Albany High School, and son of Mrs. Spensley in charge of "Albany's Hospital for Incurables" in Madison avenue, leaves for Rome, Italy, October 25, for an eight years' course of training to become a Roman priest.

ALBANY

MEDICAL ANNALS.

VOL. XI. NOVEMBER, 1890. No. 11.

SOME OBSERVATIONS ON THE MANAGEMENT OF WOUNDS IN THE SURGICAL CLINIC OF PROF. E. VON BERGMANN, BERLIN.

BY W. G. MACDONALD, M.D., ALBANY, N. Y.
(*A. M. C.*, '87.)

[*For Albany Medical Annals.*]

The methods which we employ in the management of wounds, both accidental and surgical, at the present time, are but periods in an evolution whose birth was with the discoveries of Sir Joseph Lister. The study of this evolution in the management of wounds is most interesting, from the time when Lister, with his dressings and spray directed toward an intangible, a mysterious something, probably micro-organismic in its nature, until now (thanks to the labors of Pasteur and Robert Koch), when we are able to demonstrate the causes of wound-infection, to isolate the specific micro-organism of suppuration and of its sequences —septicæmia and pyæmia—as well as those of erysipelas, gangrene and tetanus.

The presence of these organisms in wounds and elsewhere in the body cannot be disputed; still, their precise influence in the conditions which we term surgical sepsis has been, and is yet, regarded as debatable by some. For practical men it is not material whether surgical sepsis is produced by the presence of micro-organisms or their derivatives, ptomaïnes, so long as they know that, unless these organisms are either destroyed or avoided in their management of wounds, sepsis is sure to occur.

Naturally there have arisen among surgeons two parties, one of which advocates the *destruction*, the other the *avoidance* of micro-organisms in wounds—the one, *antisepsis;* the other, *asepsis.* Yet a small party, who claim to believe in no pathogenic influence of micro-organisms, but simply the

avoidance of coarse dirt, are simply surgical socialists—a wing of the aseptic party. To a non-partisan who will observe the work of each party, much will appear in their results alike—a nearly equal success. They simply arrive at the same goal by different roads. Whether we shall choose one or the other will depend largely upon our personal inclinations and our surroundings. To my mind the aseptic method is the ideal one, yet I can readily see how surgeons can be placed in positions where its application in the nicety of detail becomes practically impossible.

Without further introduction we shall describe to you the details of the management of wounds in the clinic of Prof. E. von Bergmann, in Berlin. Since two years ago, when Prof. Bergmann abandoned the antiseptic method, surgical cleanliness has been the rule. The operating theatre is very simply and substantially furnished, with plain walls and furniture. The floor is of tile, and is always kept wet during operations. Operating tables and stands for instruments and dressings are so constructed that they can be easily cleansed, and all show evidence of the vigorous application of the scrubbing brush and a generous supply of soap and water.

The instruments to be used at an operation are boiled for ten minutes in a one per cent. solution of carbonate of soda. The addition of the soda to the water dissolves all particles of organised matter from them, and besides, prevents rust. When the instrument is required, it is taken from this solution, wiped dry by aseptic gauze, and handed to the operator. They are never returned during an operation to the instrument tray until they are again thoroughly cleansed.

Gauze and cotton absorbents are the only materials used for dressings, aside from the starch or gypsum bandage for fixation. These dressing materials, together with the sheets, towels and compresses, are placed in sacks and then into a large steam sterilizer, where they are subjected to a temperature of 212° F. for an hour, after which the heat is withdrawn, and the dressings allowed to dry by the heat already produced. This method of steam sterilization is the one advised by Prof. Robert Koch. When required, the dressings are brought to the operating-room. Before sterilization they are cut and folded in suitable shapes. In ordinary operations no sponges are used, but folded pieces of sterilized gauze "tupfer" are employed in their stead. The only materials which I saw used for ligatures and sutures were catgut and silk, the latter very rarely. The catgut employed is the ordinary commercial article. It is cut in pieces long enough for a single suture or ligature and preserved in a five

per cent. solution of corrosive sublimate in absolute alcohol.

The operator and his assistants wash their hands thoroughly with good glycerine soap (a soft white soap of excellent quality) and sterilized water, and rub dry with sterilized towel; then the washing is repeated in dilute alcohol, and finally in a solution of corrosive sublimate 1-2000. The brushes used for this purpose are kept in a solution of corrosive sublimate, as it has been demonstrated that brushes left dry about operating-rooms are in themselves sources of infection. After this washing, all don sterilized white operating gowns, and all is ready for the operation. Perhaps there are no more favorable types for the application of modern surgical methods than amputations for disease, excisions of tumors, and the removal of glands in the earlier stages of local tuberculosis. Serving as a type of this class of operations, let us then select a case of carcinoma mammæ, with removal of axillary glands, and describe the methods of procedure.

The patient is placed upon the table and the whole chest bared. The table has no upholstered mattress, but is simply covered with Mackintosh. The whole chest, arm, neck and axillary spaee are cleansed in the manner described for the surgeon's hands, the breast and axillary space being previously shaved. When all is made dry by sterilized towels, a sterilized sheet is placed under the patient and all but the field of the operation well covered to avoid exposure. The head is bandaged to prevent the hair or particles from it falling into the wound. The instruments are handed, as previously described, by a nurse, who does that alone, while another hands the bits of gauze for blood-stilling. One sweeping incision under the lower border of the breast extends into the axilla, another above completes the incisions, and breast and glands together are dissected out, and exposed surfaces are immediately covered with gauze. Now comes a most painstaking and exact blood stilling, using bits of gauze and tying every bleeding point with catgut, re-covering the wound area with fresh gauze, and proceeding until entire wound is dry; then interrupted suture of wound-borders, without drainage, even after amputations of thigh, and finally with dry gauze clearing the blood-stains from the body. Then comes the dressing, which is applied as follows: First over the wound are applied several layers of sterile gauze, then several layers of absorbent cotton, then another layer of plain cotton wadding; then the arm is enveloped in a bandage of cotton wadding and placed across the chest, so that the hand touches the opposite shoulder. The dressing

is then completed by a gauze bandage, the latter portion of which is impregnated with starch. An important feature of all dressings applied in Prof. Bergmann's clinic is the means employed to secure always complete rest in the wounded parts.

Thus, we have an operation completed and the dressing applied without the use in or about the wound of a single drop of any germicidal agent. The procedure in amputations, excisions of glands, or of the tunica vaginalis testis for hydrocele, differed in no essential particular from the method just described.

During our five month's observation in this clinic the results have been most excellent; indeed, with the most stringent antisepsis they cannot be excelled, even if equaled. Seldom were operations followed by any serious rise of temperature, nor was there any considerable serous oozing, requiring early changes in the dressing. Time after time had we opportunity of seeing a series of secondary dressings after eight or ten days where the wounds were completely united by first intention, with only very few exceptions.

A second series of cases has to do with wounds which are already septic or are so situated that sepsis cannot well be avoided, such as operations for suppurating hydatid cyst of the liver or kidney, excisions of joints, the rectum or larynx, and the treatment of psoas abscess.

In a large hydatid cyst of the left kidney, in which suppuration had taken place after lumbar incision, the cavity was washed by a weak solution of corrosive sublimate and firmly tamponed with iodoform gauze, the outer dressing not differing from other cases.

We have had the opportunity of seeing many cases of local tuberculosis involving the knee and hip joint, which earlier and in other clinics had been treated by hypodermic injections of iodoform in glycerin. In all of these cases the injections were followed by an exacerbation of the symptoms and by active suppuration. The first case we saw operated upon was a small child with tuberculosis of the knee-joint. Prof. Bergmann made the U-shaped incision for excision of the knee. When the joint was opened, pus flowed freely over the wound. It seemed to us that amputation would be very proper under the circumstances. The cartilages and synovial sac were carefully removed by the scissors and the whole cavity moistened by an ethereal solution of iodoform, after which it was tamponed with iodoform gauze and the limb dressed in an extended position. After two days the patient was again anæsthetized,

the tampon removed, and the wound closed by suture; union by secondary intention, without suppuration. We have seen this method of secondary suture very often employed and with very excellent success. It seems by all means preferable to primary suture with drainage, or to the open method of treatment. It is particularly useful in operations for osteo-myelitis and tuberculosis of joints.

The methods of managing accidental wounds can be illustrated by brief abstracts of two cases.

At a clinic was presented a child of about seven years, which an hour previously had been run over by a street car. The left leg had suffered a compound comminuted fracture extending into the ankle-joint. The child was anæsthetized and the limb scrupulously cleansed after the method described. The toes received particular attention, each nail being cut and its border well brushed out. The numerous lacerations were thoroughly irrigated, counter-openings were made, and all wounds carefully tamponed with iodoform gauze, with the usual dressing over all. The limb was fixed by a plaster-of-Paris dressing. Although doubts were expressed at the time, the limb was saved. We saw the secondary dressing; no suppuration.

The second case was that of a penetrating gunshot wound of the brain in a man of about forty years. For us and our purpose it is only necessary to say that no attempt was made to explore the wound, that the head was shaved, the darkened borders of the wound trimmed, and an aseptic dressing applied. The case ran nearly an afebrile course, and after two months the patient was turned over to the tender mercies of German justice, as before shooting himself he had committed a murder.

We saw many cases of accident treated similarly, finding much to recommend and little blame in the methods.

THE IMPORTANCE OF ATTENTION TO CHRONIC FORMS OF DISEASE.*

By U. B. LA MOURE, M.D., Albany, N. Y.
(*A. M. C.*, '78.)

One of the therapeutical problems, if not the greatest of such problems, before the profession in our time, is the treatment of chronic disease and of those constitutional faults which underlie chronic disease. If the general practitioner

* President's address at the annual meeting of the Medical Society of the County of Albany, October 14, 1890.

will take his list of patients and write down in a corresponding list the names of each of their diseases, he will be surprised to find what a large proportion of his work has reference to disease that is not acute and to ailments rather than disease.

This impression is got from practice only. In a hospital the medical student sees a severe class of cases, medical or surgical, representing accidents and emergencies and exceptions rather than the ordinary "ills that flesh is heir to." But he will not have been long in practice before he finds out how different is the set of facts and failings with which he now comes to deal. He will find his list of diseases will not run so much in the heroic style, such as pneumonia, fevers, cerebritis, and peritonitis. It will take less acute forms, as dyspepsia, albuminuria, phthisis, rickets, constipation, hemorrhoids, epilepsy, diarrhœa, diabetes, cardiac faults, cancer, rheumatism, etc.

An acute case, no doubt, gives a practitioner much trouble and anxiety for a few days, but such cases are soon over, and the general principles upon which they are to be treated are now pretty well matters of agreement. But with chronic derangements it is otherwise, and unless their significance be quickly and intelligenty apprehended, the patient drifts into disease and often into dissatisfaction either with the medical art itself, or with the practitioner who in the particular instance represents it.

The importance of attention to chronic forms of disease is urged from a conviction that it will yield satisfactory results, both in a scientific and a practical respect. The drift of the argument may be expressed thus: That much of the disease that shortens and embitters life, when not altogether functional, is chronic; is degeneration rather than disease. Secondly, that we have reason to believe that such degenerative processes admit of being retarded. Thirdly, that the indefinite retardation of a degenerative process is practically the extension of life to its natural limits, and is the next best thing to a complete cure. Fourthly, that this retardation has come to be a prime function of scientific and practical medicine.

An elaborate discussion of these several propositions is not proposed, but they are important with reference especially to the element of time, which constitutes so important a factor in disease. Cases are recorded in which even cancer has extended over a period of twenty years or thereabouts. Surely, if cancer can be extended over twenty years, the time may come when it can be extended over thirty, and practically cease to be a cause of premature death. And

if a disease so virulent as this can be so protracted, is it not reasonable to hope that less intense and virulent degenerations, such as tuberculosis, atheroma, and others, may be so extended? What is urged is that the accomplishment of this extension is not only a part of the science and practice of medicine, but is a most urgent, and withal hopeful, part of medical work.

Dr. Robert G. Eccles, in a recent lecture on the "Evolution of Medical Science," delivered before the Brooklyn Ethical Association, pays a tribute to the unselfishness of the medical profession.

"Medicine," he says, "in all ages, has attracted into its ranks the most self-sacrificing members of society. As a science it was born in altruism. To this day it offers the greatest opportunities of any department of life for the practice of the most ennobling graces of character. These constitute a primary cause of its evolution. Medical men stand alone in the earth among all others, striving with their whole might to extinguish their business. They preach temperance, virtue and cleanliness, knowing well that when the people come to follow their advice their occupation, like Othello's, will be gone. They establish boards of health to arrest the spread of disease, while well aware that such sanitary measures steal money from their purses. How well they succeed is shown by official statistics. Nobody ever fails to send for a physician in typhus fever. Only six persons in a million die of this disease. Many more used to die when no effort toward its suppression was made. Whooping-cough seldom frightens patients, and neighborly old ladies of both sexes give advice; as a consequence 428 in a million die of this disease. Measles, being a little more serious, needs the doctor oftener, and only 341 in a million die. Scarlet fever is still more alarming, so that medical advice is more in demand, and 222 in a million die of it. Diphtheria frightens still more, thus assuring the doctor's presence oftener, and 168 in a million die. It is thus with every disease; the fewer it kills, the more people fear it, because, if they did not fear it, they would play the fool and give it a chance to kill more people."

As a moral from this, it seems to me that if the same concern was exhibited by physicians, and by people as well, for the treatment of ordinary ills of life as is shown towards those diseases which are feared, and which are so amenable to sanitary regulations, many of our cases, if not cured, might be made comfortable for many years.

Chronic disease and slow changes are too apt to be left to drift, or are regarded both by the patient and by the practitioner as matters for domestic treatment. Can any thing be more unreasonable? We are persuaded that the growth of general intelligence and education will convince the public that, apart from their acute illnesses, the confirmation of health and the strengthening of weak points in the physical system are to be looked for, from ever-advancing physiology and medicine.

This great service of medicine we do not think is likely to be accomplished mainly by individual remedies or by mysterious specifics. Medicines may contribute most importantly to it, but undoubtedly it will be done by *medicine*, rather than by medicines; by an intelligent use of all those means whereby glands and blood-vessels are preserved in their integrity, and the blood in its purity; and by bringing the manner of life to a close accordance with the laws of hygiene.

During the past year the interest of physicians has been largely devoted to pyrexial diseases, to complaints attended by high temperature, acute phenomena and urgent danger, and this with great success; surely so, when we consider the gratifyingly small number of deaths from pneumonia when so many persons were attacked. Meantime, slow processes ofdisease are regarded with little more than pathological interest; whereas, if I am right in my views, they promise a field of creditable work for the physician.

During the past year the meetings of the society, while few in number, were well attended, the papers presented possessing more than ordinary interest, and the discussions being interesting and instructive.

It was hoped the year would be recorded as exceptional with regard to deaths among our number; and as it drew towards its close we were beginning to feel that we were really to be congratulated on our escape, when the recent death of Dr. Cornelius D. Mosher cast a shadow upon us. But for this calamity the society might have been congratulated on having passed through a whole year without the loss of a member, and also through a year of peace, content and prosperity unequaled in a long time.

Cyanide of Gold is said to be the substance used by Koch in his experiments to prevent the development of the tubercle bacillus in Guinea-pigs.

REPORT OF THE COMMITTEE ON HYGIENE OF THE MEDICAL SOCIETY OF THE COUNTY OF ALBANY.*

By E. A. BARTLETT, M.D., Chairman, Albany.
(*A. M. C.*, '79.)

Mr. President and Gentlemen:

Your committee desire to offer the following report: There has been nothing referred to it for action.

WEST ALBANY EPIDEMIC.

During the twelve months just passed, the city of Albany has been visited by two severe epidemics—the outbreak of fever of a typho-malarial type in West Albany, and the appearance of a novel form of epidemic influenza. The former is another of those instances wherein are exemplified the serious results following the presence of ground-water polluted with soakage from sewers and cesspools. Instances of this kind have so multiplied of late years that the permission of the existence of such conditions becomes scarcely less than criminal, and the abatement of them one of the chief concerns of health-boards.

LA GRIPPE.

The epidemic of influenza offers for the consideration of experts a well-nigh insolvable problem. Familiar to you all as to its symptoms, we need not describe it; state its etiology, we cannot. This much is true: It moved rapidly, spreading from place to place through every nation, was limited by no barriers, and was no respecter of persons; it was equally prevalent among the cleanly as among the squalid; its spread by contagion cannot be traced, and quarantine regulations would have been impossible, as it seemed to be a result of atmospheric conditions. The secondary effects of it were most pernicious, and it would be difficult to determine how many of the deaths from acute respiratory diseases, consumption and diarrhœal diseases, in the five months subsequent, were indirectly due to it.

INCREASED MORTALITY.

The number was materially increased, especially of acute respiratory diseases, there having been 115 in January, 46 in February, 41 in March, 33 in April, and 30 in May—a total of

* Submitted at the annual meeting of the Medical Society of the County of Albany, October 14, 1890.

of 265 in five months. There seems to have been but little increase in mortality from consumption as a result of the epidemic, the number of deaths from this cause having been 302, which is a little below the average (308.50) for the last six years. The question why we have so much consumption in the city is a difficult one to answer; but, studying the reports, we find that the number of deaths from this cause is greatest among the poor foreign population. That this fact is due in part to the squalid surroundings of this class, it is fair to presume; but certainly emanations from wet, foul basements acting upon a predisposition will have a most baneful effect. There ought to be some means to prevent the flooding of so many basements through backflow in sewers as occurs in the lower part of our city.

CIRCULATORY AND NERVOUS DISEASES.

An interesting portion of the reports issued by the State Board of Health is that in reference to the mortality from circulatory and nervous diseases. The record for the past year is, of the former 320, and of the latter 257, which is a little below the average for the last six years. These are not generally classed among the preventable diseases; nevertheless, they are preventable to a certain extent.

Suggestive queries in this direction are as to the effect of our system of education upon the children; the habits of dress upon women; of business upon men; and the habitual use of stimulants and narcotics upon all classes.

INFECTIOUS AND CONTAGIOUS DISEASES.

The records in regard to infectious and contagious diseases show the results of systematic effort at prevention, in a considerably decreased mortality. While the deaths from the majority of these is less, typhoid fever still continues to furnish a full quota.

TYPHOID FEVER.

A comparison instituted between thirty-three cities of this country whose population is over 60,000 gives for the first six months of 1890 the following results: In an aggregate population of 10,000,000 there were 1,675 deaths from typhoid fever alone, an average of .17 per 1,000. Out of the whole number of cities there are but three with a greater mortality from this cause than Albany; these are Pittsburgh, Pa., .45; Lowell, Mass., .44; Charleston, S. C., .40; Chicago has the same as Albany, .35, and Philadelphia has .33. The six cities with the lowest record are Syracuse,

N. Y., and Worcester, Mass., each with .04, Brooklyn, N. Y., and Denver, Col., each with .05, and New York City and Scranton, Pa., with .06. Why is this large ratio in Albany?

THE WATER-SUPPLY.

The chief cause of typhoid fever in the individual is the introduction of the typhoid germ to the alimentary canal; the more common channels of such introduction are the water and milk ingested. Your committee have made a partial investation with reference only to the former of these up to the present time. The task is not an easy one, for the city has four sources from which a public supply of water is obtained, to say nothing of numberless private wells.

Of the four sources referred to, one is the public wells of the city, than which a more dangerous supply cannot well be conceived. There are twenty-eight of these scattered over the city. That the prevalence of typhoid fever cannot, as yet, be traced directly to the use of water from these wells does not alter the fact that they are a dangerous source of water-supply, situated, as they are, so as to receive soakage from polluted soil.

The other sources, three in number, are included in the city waterworks system:

First, the supply from Mazlandtkill, the oldest of all, having been in continuous use for about one hundred years. It supplies North Albany and North Broadway, as far south as North Ferry street, and certain of the houses on the east side of Broadway to Clinton avenue, and the east side of North Pearl street to Columbia street.

The next is the supply from Patroon's and Sand Creeks, impounded in the Tivoli Lake reservoir, the old Tivoli Lake having been abandoned and the reservoir made in its stead. This water is distributed to that portion of the city lying along North and South Pearl streets and all east of them.

The third source of city water works system is the water pumped from the river and obtained by gravitation from Rensselaer Lake. This is distributed to all portions of the city, except those already mentioned, the western limit being at the Boulevard on Western avenue and at Watervliet avenue on Central avenue.

INFERENCES AND CONCLUSIONS.

Of the thirty-five fatal cases of typhoid fever which occurred during the first six months of the current year, only three occurred in West Albany. Of the other thirty-two, six occurred in that portion lying east of Pearl street, and

the remaining twenty-six in that portion bounded by Pearl street on the east, Lark street on the west, Colonie street on the north and Third avenue on the south; that portion lying west of Lark street and north of Livingston avenue being practically exempt.

It will be seen that here are very meagre data from which to draw conclusions or upon which to make recommendations. Before doing so there are many other facts to be noted. The matter is of so great importance it is hoped the society will direct the continuance of the investigation.

[Chairman Bartlett exhibited to the society, on a map of Albany, the location of the public wells, the limits of distribution of water-supply from the separate sources named, and the locations of all the fatal cases of typhoid fever.]

ABSTRACTA.

Preservation of Bodies for Dissection.—*Internally.*—The spirit and corrosive sublimate injection is used. Its preservative power is perfect, but the use of spirit as the only fluid leads to early drying on the dissecting table, and much trouble was required to keep such parts as the hands feet and scalp, and, indeed, the body generally, from drying before they could be fully dissected. I correct this by adding glycerin.

The proportions I use are spirit (methylated spirit), two-thirds, glycerin one-third; to a half-gallon of the fluid is added 160 grains of the corrosive sublimate. More than that quantity of the perchloride if the body has begun to decompose; twice as much if decomposition is advanced. The perchloride should first be dissolved by rubbing it in a mortar in a little of the spirit.

On an average we throw in two gallons; for a thin female subject one gallon may suffice; an old subject takes in less than a young one. The skin begins to show white mottling, then the mottlings become confluent, giving a uniformly white skin. The injection is then sufficient. We always inject by gravitation, using the hand-syringe only if the body has been much cut up in post-mortem examination.

The above-mentioned quantity of the fluid will have passed in gently by gravitation in an hour and a half—at first rapidly, then more slowly. Without the glycerin it passes in more rapidly, in about twenty minutes. If the hand-syringe is used, a considerable pause should be made after the first gallon. In old subjects the use of the hand-syringe is apt to cause rupture of the arteries of the abdomen.

Some of the fluid should be injected into the peritoneal cavity (about two pints) by puncture at the umbilicus; some into the

nasal cavities and mouth; some into the bladder, after any urine has been drawn off; and some into the rectum, which should previously be washed out.

I have always, both in Edinburgh and in this school, injected from the femoral artery, at a little below Scarpa's triangle, one pipe up, another down, both fed at the same time by the gravitation tubes. Injecting from the arch of the aorta ruins the dissection of an important region of the thorax. I have had every injection pipe made with a stop-cock; that is much more convenient than having the stop-cocks separable.

Some of the fluid may be thrown up into the veins also, either at the femoral cut or by the great saphena in front of the ankle. It goes up into the portal system and other abdominal veins, and to the right heart and thoracic system, and if pushed a little it will overcome the valves at the root of the neck and pass to the head. This makes the injection more thorough, but generally we do not require to inject the fluid into the veins.

I have found that injection of the veins alone will do, along with the external application to be mentioned next. We did that for a time when the injection was of glycerin and carbolic acid, to avoid blocking the arteries for the red injection, but with the fluid we use there is no occasion for avoiding injection by the arteries. Washing out the veins before throwing in the fluid may be easily done in an opened subject, from the ankle, wrist and root of the neck on one side, and is worth doing; but in the case of entire bodies we have not generally done so for ordinary dissecting-room purposes.

Externally.—I use 1 of carbolic to 8 of glycerin; if decomposition has begun, 1 to 6, or if decomposition is advanced, even 1 to 4; but 1 part to 8 is our usual proportion. Take a large brush, as thick as the wrist, and paint the body over with the fluid, as thick as it will take without running off. Using the common cheap carbolic acid and glycerin, the body is black for the moment, but in a little while the body is white again. Repeat this process three or four times, say twice the first day, and the same next day, and the body may be regarded as cured.

This process alone, if repeated often enough, will preserve at least an opened body, but we always inject as well. The affinity of glycerin for the serum of the tissues makes it go in rapidly, carrying the carbolic with it.

The perfect *preservation of the skin* is a special advantage of this method If the cuticle had not already been loosened by decomposition, the skin of our subjects, months afterwards, is natural, with the cuticle firm. If the cuticle is already loose, it is best to remove it. The painting of the front of the body may be done when the injection is going on by gravitation—the sacrum, shoulders and head resting on small blocks—then the body must be turned for the painting of the back, and the same repeated next day.

If decomposition is far advanced, it may be arrested and the body restored by the above injection, external applications being used in the strong proportions. Further, the fluid for external use may be injected hypodermically, after pricking with a needle to allow of the escape of the gases of decomposition. Bodies that would formerly have been regarded as unfit for use may thus be restored so as to be useful subjects for dissection.

Storing.—After the bodies are fully prepared I keep them in *slate troughs*, 6 feet 6 inches in length, inside, the flat lid fitting accurately every way the edges of the trough, assisted with a very little antiseptic grease. There is no necessity for having the bodies immersed in a fluid. I began with having some spirit in the bottom, so as to have an atmosphere of spirit in the trough, but that is unneccessary—indeed, I would say not beneficial; nor is it necessary to have a cloth round the bodies saturated with the fluid. Nothing is needed.

But the bodies should not press on each other. I have a thin frame of wooden spars in the bottom of the trough for the lowest bodies to rest on, so as to keep them out of any fluid that may drop down, and a middle frame of spars, resting on a foot at each corner of the trough, for the upper bodies to rest on. These wooden frames, as well as the interior surfaces of the trough, should be carefully carbolized.

The lid of the troughs is of thin slate, half-inch thick, with two iron handles, so that a man can easily lift it up. When raised the lid rests on a wooden support, and stands reclining against the wall of the room. In this way chipping of the edge of the lid is avolded.

The kind of trough I would recommend, if the preserving-room is large enough, is one to hold only two subjects, side by side. They are thus more easily examined and selected when wanted. But with the glycerin process above described a slate trough is not absolutely necessary. I think a well-fitted wooden chest would suffice, at least if lined with zinc. The slate troughs are expensive, and require a great deal of care in the fitting up; the lids have to be ground thin and level at the slate-works, and the mouth of the trough has to be ground quite level after the fitting up.

My larger *preserved dissections and moist preparations* of comparative anatomy are kept in slate troughs about half the size of those described, each enclosed in a wooden chest besides. For such dissections, too large for glass jars, I would recommend slate troughs always to be used.

After about a week the subject should be turned in the trough to counteract gravitation, and after another week turned again on the back. If the number of the subject in the teacher's book is chalked outside the trough, he can at once send for a subject of the sex and condition he wishes. The subject improves by being kept for, say, a couple of weeks before being dissected.

The fluids have had time to act on the tissues. Months afterwards, the bodies preserved as above described are quite fresh, and would, indeed, keep so for any length of time.

Dissection.—During dissection the exposed parts of all bodies, whether preserved or not, and in whatever way preserved, will tend to dry. My way of preventing or diminishing this is to have a large waterproof cloth for each dissecting table, large enough to overlap the table, and when the rooms close for the day the servant goes round and covers each body or table with the cloth, removing it in the morning. The trouble is not great compared with the advantage. The cloth may cover the whole table where the separated parts lie, or, when the body is still entire, the cloth may be tucked in at the sides of the body.

If the cuticle had been detached before the preserving process could be applied, the part should be wrapped in a glycerinized cloth (glycerin and water equal parts), and that wrapped in a waterproof bandage until the skin is dissected off.

We generally dissect the back first, and then turn the body permanently. Before the body is thus turned the dissected surfaces should be carefully painted with the glycerin-carbolic fluid, otherwise they will be found to mould and cause unpleasant smell in the rooms. That is because the preservative fluid had been removed on the dissected surfaces by the sponging with water in the course of the dissection.

The brain may be allowed to remain until it is convenient for the dissector to take it. If the body has been recent when first preserved, the brain will have been firmed by the above process. No doubt, however, the best way to deal with the brain, if the body is recent, is to remove it soon and prepare it with spirit, and then by the glycerin and carbolic process I have elsewhere described. My custom has been to take out a number of the brains as soon as the preservative injection is completed, to prepare them in the way mentioned, and give them to the dissectors of the head and neck at the time the lectures on the brain are going on.

The topography of the brain is now a very important study, and I find this method much more useful than the old method of each pair of dissectors doing their best with the brain at the time they happen to be dissecting the head. Brains so prepared lie at all times on the museum shelves and tables, moist, simply under glass shades, a thing impossible when only spirit was used. The series of the brains of various mammalia, prepared in this way, may thus always lie on the museum tables for objective study.

I need refer but shortly to the *methods I have abandoned.* I recollect the old pickling with salt in my student days; then the chloride of zinc, bleaching and corrugating everything; then the arsenical injection; and, more recently, the glycerin and carbolic injection. Some eighteen years ago the latter was much spoken of in the London schools—the bodies "packed," as it was called,

with the fluid, injected by the arteries. I found this process prevented the subsequent red injection getting fully in. I then tried it by the veins only, along with my external process; and the body may be so preserved, but the carbolic acid acts unpleasantly on the blood in the veins, rendering it like soft mud. That injection also discolors the muscles considerably, an effect which I do not think was owing to the impurity of the carbolic acid and glycerin used. I gave up the use of the carbolic acid glycerin injection, much preferring the injection above described. In 1879 the German government bought, in order to make public, from Wickersheimer of the Berlin Museum, a secret process, and much was said about it at the time as an important discovery. It contained alum, cooking salt, saltpetre, potash, and arsenious acid, in certain proportions (207 grains in all) dissolved in 3000 parts of *water*, and to ten litres of this were added 4 litres of glycerine and 1 litre of methylated spirit. I was credulous enough to try it, and lost a good subject by it. I saw Wickersheimers preparations, and there appeared to be nothing to learn from them. The bodies I saw in April last in the preserving-rooms of the Paris Anatomical School appeared to be well prepared, but I am not aware of the process employed. For years back announcements have from time to time appeared in the journals of new agents for preservation, and nothing more heard of them; but no process that I have heard or seen has given so satisfactory results as the combined one above described.

The *red injection* may be thrown in a day or two after the preparation, or later, according to convenience. At first I waited, in order to add, if necessary, a further quantity of the preservative fluid, but that is not necessary. We used in Edinburgh to employ the simple tallow and vermilion injection, but it requires the body to be heated, and in old subjects the arteries of the extreme parts were apt not to be filled, and those of the abdomen not unfrequently burst. I now use only the cold paint injection for dissecting-room purposes. I gave up the plaster injection on account of its brtttleness and unsuitability for dried museum preparations, though it runs well.

For ordinary dissecting-room purposes I use the brown glycerin and the impure carbolic acid, both being inexpensive. For brain preparations I use the cheap clear glycerin; in my histological laboratory only the purest kind, Price's best glycerine, is used. An account of my method of preparing the brain, and of my moist method for museum specimens and moist method for dissections to be kept, is given in the Proceedings of the Anatomical Society (*Journal of Anatomy and Physiology*), vol. xxii., 1888).

Very fat subjects are not so suitable for long preservation. Before preserving was adopted, the phthisis bodies decayed rapidly, but, at least since I used the above-described method, that has not appeared. Dropsical bodies are unsatisfactory, mainly

because the cuticle is apt to have loosened; the serum should be removed as far as possible by punctures and pressing; on the limbs firm bandaging downwards is the most effective way of making the pressure. But I may say we have no failures with bodies of any kind.

It may be asked, Why not use the perchloride instead of the carbolic acid in the painting process? We tried it, and our impression is that it is not so effective in that way as the carbolic acid, but the impression is not founded on definite comparative experiments. Should it yet be found to be as effective, it is more easily applied, and is inodorous. Specimens mounted in the museum prepared by the moist method described, though the method is convenient and inexpensive, have a dark appearance, and I am not certain whether that is not owing to the effect of light on the carbolic acid. It remains to be seen whether that would be less by using the perchloride of mercury instead of the carbolic acid.

It would not be easy to express fully the *benefits that have resulted* from the preservation of bodies for dissection. In my student days and earlier teaching time in Edinburgh, the dissecting-room, as in other schools, smelt like the post-mortem room, the bodies decomposing, with the accompaniment, in the summer session, of blue-bottle flies and maggots; the students sometimes ill, and dissection wounds dangerous. *All that has passed away.*

Further, the supply has been increased by our being able to preserve the bodies from the holiday months, and we can now start the students at once to their dissections at the opening of the session; and more than that, the parts continue fresh to the end, so that the student is able to get more out of his dissection. But for these improvements, the diminished supply of bodies, inevitably following on the public sanitary laws of recent years, going steadily on—*e. g.*, the almost disappearance of typhus fever —would have left the anatomical schools in a very embarrassing position, bad enough as it already was. It is, however, not merely where the supply may be scanty that the preserving process is useful. All bodies intended for dissection or for operations should be prepared. The cleanliness and satisfaction attending dissection are so much greater.

We hear sometimes of large sums of money being paid for "*embalming*" a body—hundreds of pounds! No so-called embalming process could surpass the results of the method above described, and the cost is very small. Any one can add aromatics. Nor need the viscera be removed. The body remains perfectly fresh, the features unaltered, and I do not doubt would remain so and unshrunken for years, placed in a coffin or other receptacle, or with an envelope sufficient to prevent evaporation. The process may be had recourse to in the case of bodies to be sent for burial from distant parts The body would have to be placed on a table, and the hand syringe used; on the unshaved

head it would be advisable to use spirit and perchloride of mercury alone, and on the rest of the body clear glycerin and the perchloride instead of the carbolic, for the sake of appearances and to avoid the smell of the carbolic.

It has occurred to me that, from its remarkable ingoing power, glycerin might sometimes be used locally, as on the skin or gum, as a vehicle to carry inwards any therapeutic agent duly dissolved in it.—*Extracts from paper by John Struthers, M.D., F R.C.S. Edin., Emeritus Professor of Anatomy, Aberdeen University; Edinburgh Medical Journal, Oct., 1890.*

Choloralamid-Schering (the New Hypnotic).—Chloralamid (the discovery of Dr. J. von Mering, of Strassburg) has been incorporated in the new German Pharmacopœia—a most significant recommendation for so new a remedy. It is a product of anhydride of chloral (CCl_2CHO) and formamid ($CHONH_2$), and therefore has the formula

$$CCl_2CH\left\langle\begin{matrix}OH\\NHCHO.\end{matrix}\right.$$

It is a colorless crystalline substance, soluble in nineteen parts of water and in one and a half parts of alcohol (96 per cent.). Its taste is mild and slightly bitter, but not biting. The watery solution keeps well.

When moderately large doses are given in health (45 to 60 grains), there is a decided effect upon the cerebrum. Headache, nausea, and giddiness, such as that seen after the ingestion of cannabis and belladonna, symptoms going to show that the effect must be due to the presence of the substance in the blood, by which the nervous system is affected. The drug cannot be recovered by washing out the stomach, a fact going to show that it is absorbed. Ordinarily the large doses do not affect the heart and circulation, although it has been noticed that the frequency of the pulse is slightly increased. These symptoms are less marked than those following the exhibition of chloral. *The dose*, as compared with that of chloral should be about one-third more. but it is rarely advisable to exceed thirty grains.

In diseased conditions of the system, chloralamid appears to be borne with a remarkable degree of tolerance, although some unfavorable results have been reported. It should also be borne in mind that it is useful only as a hypnotic to induce sleep, and cannot be depended upon to relieve pain. It has the advantage of being ready prepared, and is not objectionable to the palate, while the effect of the drug is manifested within a short time after taking, ranging from one-half to two hours, and, fortunately, it continues for from six to eight hours. The after-effects, as a rule, are not objectionable.

As complaints have been made that when given in the form of a powder the effect of the drug is sometimes delayed twelve or more hours, it should preferably be given in solution, within two

hours after eating, to insure contact with the acid secretions of the stomach. Tell the patient to dissolve it in a little brandy, add water to his liking, and drink it shortly before going to bed. If given in milk, not only is it insoluble, but it is difficult to swallow, for it sticks to the sides and bottom of the glass. The taste is slightly bitter, but by no means disagreeable. It should never be prescribed with alkalies, for they decompose it, nor should hot water be mixed with it, for it decomposes at 148° F.

Prof. Rabow learned one morning that the remedy had effect only in one out of six different patients, and discovered that the patient who had slept well had taken a powder containing three grammes, while the rest had taken the chloralamid dissolved in boiling water as administered by the head nurse. By this procedure the remedy was decomposed, consequently the failure.

As a sedative for maniacs, and highly irritable patients, doses of three to four grammes were entirely ineffectual. In the case of a quiet, sleepless man, three grammes of chloralamid gave negative results, while two grammes of chloral produced good sleep.

On the other hand the new remedy proved reliable in the large majority of cases of sleeplessness from indulgence in alcohol, as well as in the so called nervous sleeplessness.

The complete absence of any unpleasant symptoms on the part of the digestive organs may be explained by the fact that chloralamid does not irritate any mucous membrane in the least. Whilst a 10 per cent solution of chloralhydrate brought into contact with the conjunctiva produces intense hyperæmia, an equally strong solution of chloralamid will not affect the delicate mucous membrane in the least.

Chloralamid excels sulfonal in solubility; it causes sleep which sets in very soon after administration, and which is sure to pass off the next morning, whilst with sulfonal the patients often have to wait for several hours until they obtain the desired repose, which is, however, frequently unnecessarily prolonged during part of the following day.

It has the advantage over sulfonal that it is only half the price, and it has the great advantage over paraldehyde that it has no nasty smell or taste, nor is it difficult to dissolve.

Another Antiseptic : Lysol.—Dr. Gerlach, of Wiesbaden, has described the antiseptic power and advantages of lysol, which he has recently used with much success in Wiesbaden. As a bacteriacide it is more powerful than carbolic acid or creolin ; it is less poisonous than either of these two; and, finally it is much cheaper than either. The active principle in lysol is the creasote. —*Pharmuceutical Record.*

Pregnancy after Removal of Both Ovaries.—Dr. J. Anderson Robertson reports (*Brit. Med. Jour.*, Sept. 27, 1890) the case of a woman, age 23, who menstruated regularly and became pregnant nine months after removal of both ovaries.

To Preserve Ice.—The following method for preserving ice in a pitcher will not come amiss to those who need it for use all night in the sick-room. Fill the pitcher with ice and water and set it on the center of a piece of paper; then gather the paper up together at the top and bring the ends tightly together, placing a strong rubber band around them to hold it close, so as to exclude the air. A pitcher of ice-water treated in this manner has been known to stand over night with scarcely a perceptible melting of the ice.—*Medical and Surgical Reporter.*

[There may be some who are not familiar with a very effective and very useful method of preserving ice beside a sick bed, where it will be accessible readily to the patient or attendants. It consists simply in tying a piece of flannel over the top of a good-sized tumbler, pushing it first down so as to make a pocket half way to the bottom of the vessel. A penknife blade may be thrust a few times through the dependent portion. Throw into this the ice broken in suitable lumps for use. It will keep all night, especially if another piece of flannel is thrown loosely over it, the water formed as it melts dripping away into the tumbler. —F. C. C.]

Chrysarobin Pile Cure.—Chrysarobin has been employed quite successfully in the treatment of piles, Dr. Unna being the first to recommend its use. For external tumors a salve is employed, while if internal, it is made into suppositories. Dr. Kosobudski, who claims that the most painful cases of internal piles will be relieved by his suppositories in three or four days, and a sure cure effected in as many months, publishes the following two formulas:

Ointment of Chrysarobin.

Chrysarobin	gr.	12
Iodoform	"	5
Ext. belladonna	"	10
Petrolatum	oz.	3

Make a salve.

Suppositories of Chrysarobin.

Chrysarobin	gr.	12
Iodoform	"	3
Ext. belladonna	"	1½
Cocoa butter	"	150
Glycerin	a few drops.	

Make into suppositories, one to be used night and morning.—*West. Drug.*

Bromide of Gold in Epilepsy.—The manobromide of gold has been employed in Russia, Germany and Belgium as a nervine and anti-epileptic. Dr. Goubart, of Brussels, has reported that the initial dose for adults should be one eighth of a grain, to be increased to one fifth; for children, from one-twentieth to one-tenth of a grain. The drug is a yellowish gray friable mass, insoluble in water.—*Jour. Am. Med. Association.*

Albany Medical Annals.

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BOOK NOTICES.

FAMILIAR FORMS OF NERVOUS DISEASE. By M. Allen Starr M.D., PH.D. New York: William Wood & Company.

In this work of 339 pages we have plain, practical teaching, useful to both practitioner and student. The clinical observations which comprise it are a very great help in diagnosis and treatment. From a varied experience the author furnishes, in a concise manner, material which "makes straight the crooked paths." Recognizing the importance of an accurate diagnosis of the location of lesions in the central nervous system for proper med cal and surgical treatment, he has devoted none too much space to the subject. While the facts are not all new, they are so correlated as to make them easy of apprehension and remembrance. Tracing the lesion through the various stages of its development, he places a picture of the disease before his readers, the study of which is very helpful. Much that might be learned from the study of special as well as general works is here presented in concise form. The grouping of cases and the plan of illustrating a subject by parallel cases are attended with satisfactory results.

The matter of differential diagnosis is well exemplified by the cases presented under epilepsy and also under the subject of headache. In this latter connection it is worthy of note that out of two hundred and eighty-seven cases of headache only seven were found to be due to eye-strain. This is quite reassuring, since recently we have been given to understand that eye-strain or some other ocular

trouble is the probable cause of not only most headaches, but almost every other disease as well.

The tone of the work is generally frank and candid, with enough conservatism to give strength and force. Occasionally there is a dogmatical form of expression hardly in consonance with the rest of the work, but this is a natural result of firm conviction.

Clinical treatises are apt to be verbose. Happily this is not the case here. The necessary details are so well managed as not to be cumbersome. The work is well illustrated, the typography is clear, and there is a very good index.

Altogether the book is one to be recommended. E. A. B.

ESSENTIALS OF PRACTICE OF PHARMACY. Arranged in the form of questions and answers. Prepared especially for pharmaceutical students. By Lucius E. Sayre, Ph.G. 179 pages, 16mo, $1.00. Philadelphia: W. B. Saunders. 1890.

This little volume is a useful addition to Saunder's series of Question Compends, and cannot but be very helpul to pharmaceutical students. It covers a great deal of ground in small compass, and the matter is well digested and arranged and so printed as to be convenient in use and attractive to the eye. The "research questions" are a valuable feature of the book, and, properly used, wtll lead the student to a profitable study of the pharmacopœia. The chief aim of the author has evidently been to teach the student *how to study for himself*, and not to supply him with a mass of condensed information to be slavishly learned wite a view to passing an examination. It is good little book. W. G. T.

COMPEND OF SURGERY. By Orville Horwitz, B.S, M.D. Third Edition, enlarged, 91 illustrations. P. Blakiston, Son & Co.

COMPEND OF EQUINE ANATOMY AND PHYSIOLOGY. By William R. Ballou, M.D. 29 graphic illustrations selected from Chaveau's "Comparative Anatomy." Philadelphia: P. Blakiston, Son & Co.

Blakiston's Quiz Compend's have for years been popular among medical students, and are constantly being revised.

Ballou's Equine Compend is just issued.

INDEX-CATALOGUE OF THE SURGEON-GENERAL'S OFFICE, U. S. A. Vol. XI, Phædronus—Regent. Washington, D. C.

In addition to the alphabetical continuation of the Index-Catalogue proper, this volume contains the fourth addition to the list of medical periodicals published in the seventh volume.

EPILEPSY. By Hobart Amory Hare, M.D., B.Sc., Philadelphia. 228 pages, 12mo, cloth, $1.25. F. A. Davis, publisher, Philadelphia and London. 1890.

This is the essay to which was awarded a prize of four thousand francs by the Académie Royale de Medécine de Belgique, December 31, 1889.

A most thorough and interesting exposition of the pathology and treatment of Epilepsy.

MEDICAL NEWS.

ALBANY MEDICAL COLLEGE.

The class of '93 elected the following officers on Friday evening, October 17: President, Mr. Lucas Grove Tuttle, A.M., Troy, N. Y.; vice-president, Mr. George Herbert James, East Brimfield, Mass.; secretary, Mr. Frank Burton Sanford, Nicholville, N. Y.; treasurer, Mr. John William Russell, Seneca Falls, N. Y.; marshal, Mr. George Henry Van Gasbeek, Olive, N. Y.; assistant marshal, Mr. Oscar Josiah Mulford, Poughkeepsie, N. Y.

ADIRONDACK PARK.

In a letter to the State Forest Commission on the proposition to establish a state park in the Adirondacks, Dr. Samuel B. Ward, of Albany, says:

"It appears to me that, to be permanently satisfactory, this park should embrace all that is now forest land in what is known as the Adirondack region. A smaller park might, perhaps, answer as a temporary makeshift; but I do not believe that less than this would be satisfactory to the people of the state for a long term of years, nor would it embrace all the various watersheds which ought to be protected. It is much better that a uniform and liberal plan should be adopted rather than that the work should be done piecemeal.

"It does not appear to me that there is any good reason why private clubs or associations, having in view precisely the same objects which the state has in founding this park, should be in any way interfered with so long as they assist in preserving the fish and game, and cut lumber only in such way as to preserve the forests. Should any such club or organization at any time undertake to clear the land by wholesale, for making charcoal or any other purpose other than a small necessary clearing for cultivation, then the state might, with propriety, step in and prevent their so doing.

"A park with such limits as are above described would necessarily include many farms now under cultivation, and some small settlements; but there seems to be no good reason why these should be acquired by the state or the owners in any way interfered with in the quiet possession of their lands. To make this park available for the purposes for which I understand it is desirable, it is absolutely necessary that hotels and boarding houses should exist; for only a comparatively small number of people could camp out, and if no business of any kind could be conducted within the limits of the preserve, the base of supplies would be at too great a distance to make camping practicable for any constderable number of persons."

PERSONAL.

—Dr. William H. Lemrow ('86) has removed from Green Island, Albany county, to No. 56 Center street, Orange, N. J.

—Dr. Henry F. C. Müller ('87) has removed from Rensselaerville, Albany county, to 283 Ninth street, Brooklyn, N. Y.

—Dr. George Washington Holding ('84) has removed from Stafford, Conn., to Russell Place (Thirteenth street), West Troy, N. Y.

—Dr. W. G. Macdonald ('87), to whom we are indebted for the account, which appears in this number, of methods employed in von Bergmann's clinics in Berlin, has left Berlin, and is now in London, and expects to sail for this country on November 15th.

—Dr. Walter F. Robinson ('84), after an absence of three years and three months, has returned to the office formerly occupied by him at 214 State street, Albany. His time has been spent mostly in Vienna and Paris, in Medical investigation, largely in nervous diseases.

—Dr. Justus E. Gregory ('63), of No. 414 Clinton street, Brooklyn, died suddenly from the effects of chloroform in the drug store of Charles Torres, No. 336 Union street, late on Saturday night, October 25. He had been suffering from neuralgia in the temple, and took the anæsthetic to relieve the pain. Dr. Gregory was born near Troy, and was forty-nine years old. He was educated at the Sandlake Collegiate Institute and at the Albany Medical College. During the civil war he was a surgeon, and had charge of a fleet of gunboats in the James river. Since then he has practiced in Brooklyn. He leaves a wife and one daughter. Dr. Gregory was wealthy, and at the time of his death was making preparations to retire from practice.

ALBANY

MEDICAL ANNALS.

VOL. XI. DECEMBER, 1890. NO. 12.

DOUBLE AMPUTATION OF LOWER EXTREMITIES, FOR GANGRENE RESULTING FROM ARTERIAL EMBOLISM.*

BY A. VANDER VEER, M.D., ALBANY, N. Y.

PROFESSOR OF DIDACTIC, ABDOMINAL AND CLINICAL SURGERY, ALBANY MEDICAL COLLEGE.

Mr. T., age sixty-five, farmer by occupation, very industrious and hard-working, always in good health, excellent habits, family history good. Father of five children, all living. Complained occasionally, during the winter of 1889–'90, of some difficulty in breathing, and did not care to take long walks. On the 15th of April, 1890, while at his barn engaged in feeding his stock, felt a great numbness about his feet, extending up to his knees, and accompanied with considerable pain. These symptoms came on somewhat suddenly, and with great difficulty he reached the house, a distance of about one eighth mile, and said to his wife that he believed that he would do no more walking, that he had lost the power of his feet and his legs. There was immediate loss of sensation and much suffering during the first few days following the ushering in of these symptoms. He came under the intelligent and thorough care of Dr. C. S. Burnett, of Summit, N. Y., who, at once, recognized a case of embolism of the arteries of each leg at some point about the middle third, and the case going on to complete gangrene of both feet. The line of demarkation was somewhat slow in forming, and it was thought at first that it would be impossible for him to recover sufficiently to have any operation done. During the very hot weather of the latter part of June, he became quite weak, but rallied again, and by the middle of July, some hopes were entertained of his recovery. I was consulted, by Dr. Burnett, in regard to his case, about

*Read before the Medical Society of the County of Albany, Wednesday evening Nov. 5, 1890.

July 27th, and did a double amputation, assisted by Drs. Burnett and Lochner, July 29th, at a distance of about three inches below the knee-joint on each leg, the conditions being almost precisely alike. Dr. Burnett informed me later on, that he made a good recovery, and gained in flesh during the months of September and October, and frequently stated to his family that he had not felt so well in years. October 17th I received a letter from Dr. Burnett, saying that Mr. T. had died suddenly at 8:10 P. M. the day before, October 16th.

The following is from the Doctor's letter:

"At seven o'clock he ate a hearty supper; at eight he complained suddenly of a severe pain in his stomach, and died at 8:10 P. M. Had not visited him in about a month, he had been feeling so well, and the day of his death had been feeling unusually good. His limbs were healed sound and good, and he was counting on many years of life. He was dead when I reached his house. After finishing his supper, Mr. T. stated to his wife that he feared he had eaten too much, and after complaining of pain in his stomach, she wheeled him to his sleeping room, helped him on the bed, and he died in about ten minutes, with very hard stertorous breathing, and some frothing at the mouth."

[After discussion by the Society, the paper of Dr. Vander Veer's, and the specimens, were referred to the Committee on Pathology. At the next meeting, December 10, 1890, the Committee on Pathology presented the following report:]

The Committee on Pathology beg to make the following report on the two legs amputated for gangrene, which were presented by Dr. Vander Veer at the last meeting:

It was attempted to dissect the legs, but it was found that, the gangrene being a dry one, the parts were so atrophied and changed that it was impossible to follow the blood vessels.

The theories propounded at the last meeting were as follows:

1. *Senile Gangrene.* This the committee hold to be untenable on account of the very sudden onset, accompanied by localized pain.

2. *Thrombosis.* This is also considered unlikely, because of there being no prodromata. The invasion of thrombosis being slower, and the symptoms appearing more gradually; and the lesion appeared bilaterally at the same time.

3. *Cardiac Embolism.* The heart had been carefully examined both by the attending and consulting physicians,

and was found to be normal, and no previous history of rheumatism could be obtained, so that this cause may be excluded.

4. *Embolism Due to Dislodgment of a Calcareous Plate*, probably of the abdominal aorta.

This theory was advanced by Dr. Vander Veer, and seems the most plausible one.

The man was sixty-five years old, and had atheromatous arteries.

It seems likely that there was a calcareous plate in the abdominal aorta which became dislodged, and being carried broadside by the current of blood broke at the end of the aorta into two pieces of about equal size, and were thus carried into the two iliacs, and so into the legs, suddenly occluding the circulation.

The plausibility of this etiology is further strengthened by the manner of the patient's death. An hour after eating a full meal he suddenly complained of a great pain in the abdomen, went into a condition of collapse, and died within ten minutes. In the absence of an autopsy, it seems probable that the abdominal aorta being very much weakened and thinned in the place where the calcareous plate existed, ruptured, and that the patient died from internal hemorrhage.

H. VAN RENSSELAER, M.D.,
Chairman.

MODERN DEVELOPMENT OF HYPNOTISM.

BY W. F. ROBINSON, M.D., ALBANY, N. Y.
(*A. M. C.*, '84.)

We hear much to-day in the popular press as well as the medical journals, of the various remarkable facts and manifestations of hypnotism.

The wonderful performances of Luys and Charcot, of Paris, have traveled far and wide. How hysterical girls have been made to dance and sing and stab the bystanders with imaginary daggers, and how diseases have been made to go from one side of the body to another, and even from one patient to another, under the influence of this mysterious something, which no one seems able rightly to define. This sort of thing has now been going on for a number of years, until sober-minded people are beginning to ask, What does all this amount to, and what good are these great doctors doing to suffering humanity by all these startling experiments and strange performances?

This question may well be asked by any thinking man, and would very much embarrass some of these professors to answer. The question then would arise, is not this whole affair an utter failure from a practical point of view, and has not time shown that it is unable to cure our ills and illnesses? Before attempting to answer this question, let us cast a brief glance at the history of hypnotism, and see if this will give us any light.

When the subject first began to be agitated, several years ago, the so-called Paris School, at whose head stood the famous Dr. Charcot, threw itself, with great vigor, into the study of the question, and in the course of time, developed a most elaborate and ingenious theory which was supposed to cover all the phenomena. This theory was that of the so-called three "classical states" of hypnotism, and it has now become, through much publication, quite familiar to the reading world.

It may be briefly stated as follows: Hypnotism is a neurosis or functional nervous disease, occurring seldom, if ever, in any but hysterical persons, and more especially in hysterical girls. Its phenomena are owing to peculiar bodily conditions, whose ultimate nature is not known, but which nevertheless are amenable to certain laws. The phenomena have very little to do with the mind, but are somatic or physical in their nature. The highest form of hypnotism, "*le grand hypnotisme*," is excessively rare.

When a subject is first hypnotized in any of the numerous ways, either by the flash of an electric light, the scintillations of the revolving mirror, or the beat of a gong, he passes from the normal waking condition into the first stage of hypnotism, or the state of lethargy, characterized by what is known as neuro-muscular hyperexcitability; that is, when any nerve trunk is irritated by simple pressure, every muscle supplied by that nerve would contract. When the patient is in this state, the eyes are supposed to be closed.

If now the eyes are opened, he passes from the state of lethargy into that of catalepsy, in which the phenomena of neuro-muscular hyperexcitability cease, but this state is characterized by the fact that the limbs will stay in any position in which they are put by the experimenter.

If one eye is opened, while the other remains closed, then the side corresponding to the closed eye remains in the condition of lethargy, while the other side changes to catalepsy with its accompanying phenomena.

If the forehead be gently rubbed, or better, the roots of the hair in front, the subject passes into the third "classical

state," known as somnambulism, in which the phenomena characterizing the other states are absent, but on the other hand, there is present a more or less complete general anæsthesia, an abnormal acuteness of all the senses, and, most important of all, susceptibility to "suggestion," that is, to ideas emanating from the experimenter. Moreover, by blowing upon the skin, a special contracture may be produced different from that of lethargy, as it cannot be overcome by stimulating the opposing muscles, and different from the cataleptic positions, in that it offers a resistance when efforts are made to overcome it.

Now, by means of a magnet, the adherents of the Paris school claimed that they could transfer to any part of the body, as for example to one arm, the phenomena, such as anæsthesia, contracture or paralysis, already existing in some other part of the body. This is the great theory of the "transfert," and it is also claimed that it is a purely physical phenomenon, in which the mind of the patient has no part whatever. It cannot, they say, be due to suggestion, because it may be produced in lethargy or catalepsy, in which conditions the suggestion cannot take place.

These three states or phases they consider to be the perfect and fully developed type, and they have named it in the grandiose style of the Paris School, "*Le grand hypnotisme.*"

It is also claimed that these three states may be produced in reverse order; thus, by opening the eyes of a subject in somnambulism, he is brought back to catalepsy, and if they be then closed again, he returns to the first stage, or that of lethargy.

But, in the meantime, another center of research had sprung up at Nancy, on the eastern border of France, and this so-called Nancy School, after long and thorough investigation, arrived at results widely different from those obtained at Paris. For them hypnotism was not a neurosis, or, in other words, a disease, but a physiological condition, and far from being confined to hysterical girls, it was quite as easy to produce in healthy men as in the former.

While Charcot and his disciples looked on the various phenomena as merely of a physical or somatic origin, having their seat entirely in the material part of the organism, the Nancy School held that the reverse was true, and that the seat of all the phenomena were in the brain, and that the various results produced were simply manifestations of the action of the mind on the body.

The whole theory of the "three states" was considered by them to be absurd, and they supported their claims by most cogent arguments.

The man who has always stood at the head of this school was Prof. Bernheim, and I cannot do better than quote a few of his statements in this connection. He says: "If we have not, in our investigations, taken for a point of departure the three phases of hysterical hypnotism described by Charcot, it is because, in our observations, we have not been able to confirm their existence.

"This is what we observe constantly at Nancy. When a subject, hysterical or not, is hypnotized, no matter how, there comes a moment when the eyes remain closed. There is present neither neuro-muscular hyperexcitability, nor exaggeration of the reflexes. In this as in all other hypnotic conditions, and I insist upon this point, the subject hears what is said by the operator; he has his attention fixed upon him. Even when he rests motionless and senseless, the face seemingly a blank, he hears all. The proof of this is, that if the operator simply says 'wake up,' two or three times, the subject awakes. If the subject is sufficiently hypnotized, he can be made to manifest the phenomena of catalepsy or somnambulism without having recourse to any manipulation whatever. To place any member in catalepsy, it is not necessary to open the eyes of the subject, or to have recourse to a bright light, or a loud noise, as it is done at Paris. All that is necessary is to raise the arm from the side, and it will stay; if it does not, simply say to the subject, as you raise it, 'You cannot lower your arm,' and it will remain motionless wherever you leave it. The subject, whose power of resistence has become enfeebled, retains passively the attitude in which the member is put.

"In order to show the nature of somnambulism in proper subjects, it is not necessary to rub the head as it is done at Paris; it is sufficient to speak to the subject, and he will execute any act suggested.

"Blowing upon the skin does not produce contracture of the underlying muscles, unless the action of suggestion comes into play. We have not found that the action of opening, or shutting the eyes, or rubbing the head, has any action whatever in those subjects where 'suggestion' alone does not act.

"During the past twenty-five years, thousands of persons have been hypnotized at Nancy, but we have never been able to realize the three phases of the Paris school. On one occasion, however, I have seen a case which realized to perfection these three phases. It was a young girl who had passed three years at the Salpêtriere Hospital in Paris, and the impression which she made upon me, why should I not

express it? Submitted during these three years to a special training, imitating by unconscious suggestion, what she had seen going on around her in the other inmates; trained to realize certain phenomena of a reflex nature, she was no longer an example of natural hypnotism, but depraved by a false training, she was suffering from what might well be called 'suggestive hypnotic neurosis.'"

Here we have, in a nut-shell, the theory of the Nancy School as enunciated by its leader, Prof. Bernheim, in sharp distinction to those of the Paris philosophers. I may add that I have seen, myself, these theories demonstrated by Prof. Bernheim in his own wards of the general hospital at Nancy, and nothing could be more convincing than the careful and scientific manner in which the experiments are performed, no less than the quiet business-like way in which results are sought for, and all attempts at sensationalism or theatrical effect are ignored.

Thus it is seen that the two theories are as widely different from each other as light from darkness.

The theory of the Paris School: That hypnotism has its seat in the physical part of us; that it is an obscure sort of functional nervous disease, characterized by a series of bizarre and remarkable phenomena, produced by strange manipulations which remind us more of necromancy and magic, than of scientific procedure.

On the other hand, the more elevated, more scientific, and much more probable theory of the Nancy School: That hypnotism is not, in any sense, a disease, but a genuine physiological condition of the mind, having nothing whatever to do with the body, and not, by any means, confined to any one class of subjects as claimed by the Paris School. This doctrine impresses us by its simplicity, since it has but one great and all dominating principle—the power of suggestion.

Suggestion may be defined as the wish or desire of the operator conveyed, no matter how, to the mind of the subject, and expressing itself in action.

From this we shall readily understand the definition of hypnotism—a particular psychical condition which augments the suggestibility.

Going on in logical progression from these fundamental principles, we shall be able to explain all the strange phenomena which we meet with in this curious condition. Thus we know well that sensation is, in certain conditions, under the control of the mind, and this we see beautifully exemplified in suggestion, for it is one of the commonest phenomena of hypnotism to produce insesibility of any part of the body at will.

This explains also some of the phenomena of "transfert" which are considered so marvelous by the Paris School, they being convinced that the application of a magnet would transfer local anæsthesia from one side to another, whereas the simple explanation is that the whole affair is under the control of suggestion. The operator wants the anæsthesia to be transferred to the other side, the patient knows that that is his wish, and so it comes to pass, but that, far from the magnet having anything to do with it, the same thing could be done with a piece of wood, or by simple suggestion alone.

It should be said, before going further, that even if the three classical states do not exist, there is every possible variation in the degree in which different people are affected. Thus, in some subjects, the anæsthesia produced by suggestion is so absolute that a long surgical operation may be performed without any anæsthetic, and the patient feel nothing of it, and I have seen, personally, some remarkable instances of this fact; on the other hand, it often occurs that the anæsthesia is only partial, or while it is perfect for the skin, the mucous membranes still retain their sensibility.

Another reason why suggestion can never take the place of anæsthetics in surgical operations is that the anxiety felt by the patient just before undergoing an operation might well destroy the action of the suggestion altogether.

Suggestion may be made to control motion as well as sensation. Thus you may put the hand of a good subject up to his nose while he is in the hypnotic state, and if you tell him he cannot remove it, it will remain there in spite of all the efforts he may make to pull it away.

In the same subject you may set the hands turning one around the other, and if you say to him that he cannot stop them, he will be unable to do so. Paralysis and contracture may be produced in exactly the same way as the phenomena just related, showing that they are all produced by suggestion, and that alone, and that not only is there no necessity to seek for an explanation in the vague and fanciful theories of magnetic transference and neuro-muscular hyperexcitability, but that these shadowy theories are absurd and unreasonable in view of the satisfactory explanation offered by suggestion.

We now advance a step farther, and find that the power of suggestion is not limited to the moment in which it is given, but that it reaches out into the future. Thus Prof. Bernheim told a patient in the hypnotic state to take his umbrella when he awoke, open it, and walk twice up and

down the gallery adjoining the ward. A few minutes after awaking, he appeared in the gallery with the umbrella closed in his hand. When asked why he appeared in the gallery at that hour of the morning, when the patients were supposed to be in bed, he replied that he was simply taking the air, but he could give no explanation of the fact of his having the umbrella in his hand, since it was a fine day, and moreover the gallery was a covered one, and well protected from the weather. His bringing the umbrella, without having opened it, illustrates what often occurs; that is, the suggestion not being completely carried out, some little detail being omitted.

Suggestion has also the power to produce hallucination of the different senses. Thus a patient, in the hypnotic state, was told that when he awoke he should open the book upon his table, turn to page fifty-six, and find his portrait upon it. On awaking, he took the book and commenced to turn the leaves. "What are you looking for?" asked the professor. "I am looking for my place," he replied, "page fifty-six." "Do you expect to find anything in particular on that page?" "No, indeed, it is the page where I left off." When he found the page, he seemed very much astonished. "What is it?" said the professor. "Why, there is my portrait on the page," he replied.

One of the strangest manifestations is the so-called negative hallucination, in which some one is suggested away. The professor suggested to a female patient that he was no longer there, but would return in ten minutes. When she awoke, she was very much disgusted to find him gone. He called in her ear that he was there, pinched her finger, etc., but all to no purpose, she could not see him. At the expiration of just ten minutes, however, she noticed him again, said she was glad to see him, etc.

A still more remarkable thing is that a person may hypnotize a subject, and then suggest himself away, but still retain the power of giving other suggestions. Thus, after the first suggestion is given, and it is utterly impossible to make the patient realize that the operator is present, if he tell him to steal a handkerchief from the pocket of any one present, he will go right off and do it.

Still another power claimed for the suggestion by its advocates is what is known as "*hallucinations a longue échéance;*" that is suggestions to do some act in the future, at a certain date, perhaps weeks after the suggestion is given.

Examples of this are rare, since the subject must be a very good one, but well-authenticated cases have been recorded;

and if we acknowledge the powers of suggestion already mentioned, we may well admit the possibility of its extending its action into the future. Prof. Bernheim once gave the suggestion to an old soldier that some weeks later, at a certain date, he should go to a certain clinic, and there meet the president of the republic, who would present him with a medal and a pension. Nothing more was said about the matter, but the day after the date fixed, the professor received a letter from the doctor conducting the clinic in question, informing him that this man had come into his clinic on the previous day, and without saying a word to anyone, had gone up to a book case, and saluted very respectfully some imaginary person, and after holding some little conversation with him, had walked out again, after saluting very respectfully a second time. Everybody thought the man was crazy until the affair was explained some time after. The man afterwards declared that he never thought of going to the clinic until the very morning, and that then he had no idea why he went, or who he was going to meet.

A further power of the suggestion is to make persons lose their personality. It must be remembered, however, that there are many grades of hypnotism, and that some of these more remarkable manifestations of the power of suggestion are only seen in the last and most profound stage of hypnotism which is known, by all schools, as somnambulism. This is readily understood when the definition of hypnotism is recalled—a peculiar mental state of increased suggestibility. It is, moreover, true that the deeper the mind is plunged in this state, the more susceptible it is to suggestion, so that patients in a state of somnambulism can be made to do things which would be impossible in the lighter forms. This change of personality is a case in point.

Thus a certain, patient is told that he is only six years old, and that he should go and play with the children. He immediately begins to run and jump and engages with great apparent zest in a game of marbles, arranging them with care, taking careful aim before shooting, etc.

He also plays at leap-frog, or as the French call it "jump-sheep," jumping with energy over imaginary obstacles, and each time increasing the distance.

When told that he was a young girl, he modestly drops his head, takes some work from an imaginary drawer and begins to sew, after which he goes to a table and plays upon it as if it was a piano. When told that he was a priest, he assumes a pious look, casts his eyes upward, and walks back

and forth reading his breviary, making now and then the sign of the cross, all with a seriousness and an appearance of reality which precludes the idea of simulation.

But, it may be asked, is not simulation sometimes present, and are not some of these wonderful subjects frauds? Undoubtedly they are, and furthermore credulous experimenters (not always obscure ones either) who were in the habit of performing wonderful things with the same subject, have been most sadly duped by designing persons, who found it to their interest to seem to be hypnotized, when, in reality, they were only shamming.

I once saw a very amusing instance of this in Prof. Bernheim's wards.

The patient was in the hospital for rheumatism, and had been, in his time, a hard drinker.

The professor hypnotized him, which seemed to succeed very well, and then suggested to him that all liquor or wine should be distastful in the future, and that he should prefer water. When offered a glass of wine, which stood on his table, he refused it, but took water instead. As soon as the professor's back was turned, however, he took the wine and drank it with avidity, much to the amusement of the assembled students. When it was told to Bernheim, he laughed as heartily as anyone, and it is needless to say, made no further attempts to hypnotizė that patient. The man had evidently heard of Prof. Bernheim's hobby, and thought to get in his good graces by feigning to be a good subject.

It should be said in regard to this change of personality, that it never can give to a person powers which he has not, and that each character is taken only to the extent of the person's individual powers.

Thus a subject who was naturally diffident and slow of speech, carried out his part almost in pantomime, and when told that he was a lawyer at the bar, and must defend his client, he failed utterly, as he was unable to make a speech.

These examples might be multiplied over and over again, each one showing some peculiarity of this wonderful principle, and forming altogether a most fascinating psychological study, but space forbids any further elaboration, and we must pass on to other things.

We have seen a number of the powers of suggestion, but it yet remains to tell of its action on the organic functions, as the circulation, secretion, excretion, vaso motor system and the like.

As to the circulation, it has been absolutely proved, by means of the sphygmograph and the electric clock that the

heart-beats may be either increased or diminished by suggestion, when the subject is in a condition of profound somnambulism.

These experiments have been conducted by Prof. Beaunis, one of the most accurate and at the same time thorough and careful observers in France.

As to the vaso-motor functions, there have been a number of perfectly well authenticated cases where suggestion has caused vesication or blistering.

Both the menstrual function and the intestinal secretions have been affected in a very marked manner by suggestion, as shown by numerous examples. I remember personally a case in which the suggestion was given to a female patient that her courses should appear next day. The suggestion was literally carried out, very much to the patient's surprise, as she did not know that it had been given at all, and moreover she did not expect the menstrual flow until two weeks later.

Being now familiar with the various powers of the suggestion over the different functions of the organism in health, we can readily understand why its adherents claim for it a value in the treatment of disease which is nothing more than disturbed function. This is especially true in functional as distinguished from organic diseases, and it is in just this class (the functional affections) that the suggestion is claimed to have its best action.

Thus, in suppression of the menses from cold or other incidental cause, the suggestion, when properly given, is almost sure to bring it back, whereas when the trouble has lasted for some time, and is evidently the result of anæmia or tuberculosis, it often fails.

Constipation, when not too obstinate, is pretty sure to be relieved by suggestion.

As to the method of applying this treatment, it is wonderfully simple and utterly devoid of the awe-inspiring circumstances which some experimentors have used. The method used by Prof. Bernheim to produce the hypnotic condition is itself a suggestion, nothing more nor less. He uses no mirrors, bright objects or instruments of any kind, but quietly and persistently introduces into the patient's mind the idea of sleep, until this idea finally results in action and sleep is produced, that is, the hypnotic sleep, which is very similar, though not by any means identical with natural slumber.

Let us take, for example, a patient with facial neuralgia. The professor would say to him, "I think a little sleep

would do you good and help this pain. I just want you to go to sleep for a little while. You are getting sleepy now, your head feels heavy, your eyelids close, you feel nothing more, your hands rest motionless, your eyelids droop, the eyes close. Sleep!" Many patients will go to sleep under this treatment, or at least will feel sleepy and heavy, so that after a few treatments they reach a profound degree of hypnotization.

Others, on the other hand, remain rebellious to the soothing influence, even when applied in the most skillful manner, for there is no little skill required in this, as in every other art.

When the hypnotic state is once produced, the therapeutic suggestion is given somewhat as follows: "The pain in your face has gone away; it is all gone; you don't feel it any more; when you awake you will find that it has disappeared," etc.

In insomnia, the patient, once hypnotized, would be told, "You must sleep to-night from 10 o'clock until 8 o'clock to-morrow morning," and it is surprising to see how these commands are sometimes carried out, patients who have not slept for days or weeks often being brought back to a normal condition in this regard by means of a few hypnotic seances; always assuming, however, that the patient is susceptible of being fully hypnotized.

While this article is going through the press the principles here stated have had a striking illustration in the sensational trial of Eyraud and his mistress, Gabrielle Bompard, at Paris, for the murder of the bailiff Gouffé. It was proven that the girl Gabrielle had often been hypnotized, both by her own family physician, as well as by other persons, and the defense was set up that the miscreant Eyraud had forced her to do the deed by this means. Prof. Liegeois, of Nancy, who has written the only work extant upon hypnotism in its relations to jurisprudence, was called as an expert in this case, and testified to the possibility of the girl's having been under the influence of hypnotism. This was only natural, since the professor is an ardent believer in the theories of his school, and has seen ample proof of the wonderful power of the suggestion in similar cases. As was to be expected, the prosecution brought forward a member of the Paris school, who, true to their theories, denied that the suggestion possessed this wonderful power. The jury seem to have taken a middle course, since they neither condemned her to death nor let her go free, but sentenced her to a term of imprisonment.

You often hear it said that any one can hypnotize, but in point of fact this is very far from the truth. It is not a power, like that of magnetism, that is born in a person, but, on the other hand, it is a power that can be cultivated by study and experience, and a person like Prof. Bernheim, who has made a profound study of it, has an ability to hypnotize far greater than any ordinary person.

As to the indications for the use of hypnotism in disease, its enthusiastic advocates use it in all possible troubles, both functional and organic, acute and chronic. These absurd notions are limited to a very few enthusiasts, whose zeal has had the effect of upsetting their judgment. The more sensible adherents of this faith realize that its sphere is of necessity limited to functional troubles and perhaps some of the symptoms of organic affections.

As for myself, I am convinced that hypnotism, however great its power—and I firmly believe that it is powerful—can never come into general use as a therapeutic measure, for various reasons.

In the first place, its uncertainty of action would always be a tremendous disadvantage, some people being very easily influenced, while others can only be affected to a very slight degree, if at all.

Moreover, the tremendous power which it gives to the operator, and the possibility of its abuse, will always make the general public suspicious of it and of any one who makes extensive use of it.

In short, hypnotism will probably remain a psychological curiosity, even though our knowledge of it should become much greater than it is to day. At the same time, it should be said that its use is not by any means limited to medicine, and that a better and more comprehensive knowledge of suggestion may give it a usefulness in a field as yet hardly suspected—that of education.

Why should not this marvelous power be used to turn the thoughts of wayward children and those of criminal instincts in a right direction?

This question has already received some attention from continental thinkers, but we have no time to touch upon it in this article, and so must leave it for the present.

Anæsthesia in Small Operations,—Dr. A. Dobisch, of Zwittau, recommends spraying the parts for one minute with chloroform, 10.00, ether, 15.00, menthol, 1.00. Anæsthesia lasts from two to six minutes.

TUBERCULOSIS; ITS CURABILITY BY KOCH'S METHOD.

By W. G. MACDONALD, M.D., Albany, N. Y.
(*A. M. C.*, '87.)

Of the many valuable papers and addresses which will make up the Transactions of the Tenth International Medical Congress, none has been so widely read, discussed and speculated upon as that of Prof. Robert Koch. It is but natural. The subject of his address, "Bacteriological Investigation," has, in the last decade, assumed a very great importance, at least in the etiology of disease. The labors of Prof. Koch in bacteriology have been most productive, excelling those even of Pasteur. Yet it was not the especial eminence of the speaker, but rather the character of the contribution which has produced this enthusiasm. The curability of tuberculosis is affirmed. Since the delivery of the address, much, very much, has been written, in both the medical and secular press, by both professional and non-professional writers, with and without experience, so that one finds himself so hedged about by a mass of literature that it is exceedingly difficult to come to any conclusion regarding the value of the remedy. Upon reflection, I think we may at once throw out all secular press reports, including the statements of many physicians without personal experience who allowed themselves to be interviewed by enterprising daily papers, as being utterly extravagant and pernicious. This relieves us of the greater portion of our burden, and we may proceed to an analysis of such contributions as have been made by credible observers.

The second contribution (*Deutsche Med. Woch.*, Nov. 13, 1890), of Prof. Koch contains a description of the remedy without its character and mode of preparation being given, the ethics of which are not there considered. The remedy consists of a brownish fluid of clear consistency, and requires no especial care for its preparation. For convenience and accuracy the remedy is diluted, distilled water serving best for this purpose. The diluted solution should be prepared fresh for use each time. When administered by the stomach the remedy produces no effects. Subcutaneous administration in the abdominal wall or intra-scapular space has been the method employed. The injection has not been followed by local reaction. Dosage is very variable. In a healthy adult 1-100 of a cubic centigramme caused no other reaction

than slight pains in the limbs, a feeling of fatigue, and occasionally a slight rise of temperature. The reaction is not different with people suffering diseases other than tuberculosis. In tubercular patients the reaction is entirely otherwise. In a few hours subsequent to the administration of the remedy there is a severe chill, followed by fever and pain in the limbs, which gradually passes away. There may be an eruption resembling measles, or the patient may be slightly *icteric*. The administration of the remedy has also been followed by a profound collapse and unconsciousness, even with the administration of the small dose given above. It is recommended to employ at the outset much smaller doses, especially in severe cases. The remedy may be given in rapidly increasing doses, and usually, at length, produces no reaction. When the remedy ceases to give a reaction, then, we are told, it is regarded that there remains no more tuberculous tissue to be acted upon. I have been looking about me for some evidence of this last assertion, but as yet have found no conclusive demonstration, especially so far as it concerns pulmonary tuberculosis. On the contrary, in a personal letter from a very competent pathologist in Berlin, I am assured that in two somewhat advanced cases of pulmonary tuberculosis in which the remedy was tried (the patients subsequently died) *the changes in the tuberculous lung tissue or its surroundings were no different than are commonly observed in tuberculosis.* These observations have been confirmed by other observers. The specific action of the remedy is believed by Prof. Koch not to consist in the active destruction of the tubercle bacillus, but in the destruction of living tissue containing them. It is entirely ineffective against necrotic or encapsulated tuberculous tissue. It would seem that this, from the foregoing statement, lacks confirmation; that we have here a theory, perhaps, rather than a condition. Besides, were it true, we have every reason to expect auto-infection from large necrotic tuberculous heads, which must either be absorbed, encapsulated, or thrown off by inflammatory processes. In severe cases a combination of this and other methods is also advised.

For further analysis, let us examine the material shown at the demonstration of Prof. E. von Bergmann, November 16, 1890 (*Centralblatt für Chirurgie*, Nov. 29, 1890), some three months after the introduction of the remedy in the treatment of tuberculosis. Forty cases of surgical tuberculosis were shown, yet not a single one was expressly stated to be cured; in fact, only three cases of lupus were shown which had been under treatment ten days (Cases XI., XII., XIII.), and

they would hardly be regarded as more than improved, although one (Case XII.) reacted no longer to the remedy, and Prof. von Bergmann himself said that he was unable to regard this patient as cured. It would have been of exceeding interest to have seen a series of cases treated early in September until reaction ceased. One case, elsewhere reported as cured, returned again for treatment, with a return of symptoms, in six weeks.

Prof. Koch regards lupus as the most suitable form of tuberculosis for the employment of his treatment. Prof von Bergmann presented thirteen cases. The symptoms produced were as follows: Shortly after the administration of the remedy (1-100 ccm.) the general symptoms occurred—chill, fever, the temperature range from 39.5° to 40.6° C., swelling of lupoid tissue, with increasing redness, followed by local death and separation. The ulcer then assumes a healthy condition, and after a varying number of treatments all general reaction disappears. The reaction is very similar in glandular tuberculosis, only with the subsidence of the the glandular swelling and fever there is an apparent disappearance of the gland without ulceration. Where it was employed for the treatment of bone and articular tuberculosis, the phenomena have been somewhat modified, and the favorable results not so apparent. For tuberculosis of the larynx some fears were expressed that the employment of Koch's remedy might lead to œdema of the glottis and necessitate tracheotomy, but fortunately, we are told, this does not occur. It would seem that the remedy has its eccentricities.

In regard to pulmonary tuberculosis, I am not familiar with the reports of any cases. In a clinical lecture, Prof. Gerhardt reported an amelioration of symptoms, but very justly remarked that it was yet too early to affirm that the patients were cured. He also called attention to the fact that not all tuberculous patients reacted to the remedy, but some were not appreciably affected. Dr. Köhler, in the Charité, after a five weeks' experience, can report no case of cure, although he regards many of his patients as much improved.

To return once more to the nature of the remedy, it is doubtless a ptomaïne or allied albuminous compound. Chemical analysis has shown it to be free from metallic elements and cyanogen. It is rich in peptones, and contains a small amount of albumin.

Briefly, regarding the remedy, it may be said: That it certainly has a marked influence in cases of tuberculosis,

especially lupus and glandular forms, but that there are patients with tuberculous processes *who do not react to the remedy;* that the physiological action of the remedy is far from being demonstrated; that the changes in the tissues subsequent to the administration of the lymph are not described either with certainty or uniformity by the different observers; that clinically no case has been observed, or reported fully, of cure of any form of tuberculosis; that some cases of cicatrization in lupus have been followed by relapse; that as yet there has not accumulated sufficient clinical evidence to place any accurate estimate upon its value, but that its utility will in all probability be much less than at first believed; that it is exceedingly desirable that series of cases shall be carefully observed and reported.

ABSTRACTA.

Nitrite of Amyl in Epilepsy.—It increases the severity of *petit mal.* In epileptics who have a prolonged *aura*, we may use nitrite of amyl pearls. As the *aura* comes on, the patient should break one of these in his handkerchief and inhale the drug, thereby putting aside the attack.

The influence which the drug exerts on the brain is secondary rather than primary, and is probably dependent for its action on the blood or circulation. Its influence on the spinal cord and nerves is much more marked and direct, and it is most certainly a very powerful spinal depressant. It affects the vaso-motor system very powerfully, and those who think that epilepsy is due to vaso-motor spasm at the base of the brain, point to the effects of this drug as a proof of their hypothesis.

Such reasoning is not, however, necessarily correct. The writer is inclined to believe that the nitrite of amyl puts aside an attack by a sudden shock to the nerve-centres, which diverts them, so to speak, from their intended discharge, very much as a ligature stops an *aura.* When we remember that the drug acts instantly, and converts nearly all the oxygenating blood of the body into a non-oxygen-carrying fluid by reason of the nitrite-oxyhæmoglobin produced, the sudden change in the cerebral nutrition and life is most marked.

In the "status epilepticus" it is of great value in stopping the seizures, and may be used under these circumstances in heroic amounts applied at intervals to the nostrils. In the tonic spasm, if it be severe enough to stop respiration, it should be remembered that, as the drug is not inhaled, it is absolutely worthless. It is only when a moment of relaxation occurs that it does its work.

The nitrite of ammonium or sodium, which are more prolonged in their effects, should be used to supplement the amyl salt.

Gowers states that nitrite of amyl does good by flooding the brain with arterial blood.

How such a statement can be made by any one is amazing.

Of all the drugs in the world nitrite of amyl produces exactly the opposite change, as Gowers should be aware from his own use of the substance.—*Hobart Amory Hare, M.D., in prize-essay on Epilepsy; F. A. Davis, publisher.*

NIGHT TERRORS may be divided into two divisions, in the first of which no further nervous changes occur, and in the second of which true epilepsy ultimately develops. The writer is well aware that the profession, at least in the majority, generally look upon this condition as entirely separate and apart from partaking of an epileptiform character ; but he is equally thoroughly convinced that frequently night terrors may be but an evidence of nocturnal *petit mal.* He has seen too great a number of cases which followed out to the letter all of the course usually followed by the minor attacks to doubt this for a moment, and he has already pointed out that in nocturnal epilepsy the patient usually forgets the seizure, but remembers the frightful dream which preceded it, showing that a night terror usually occurs even in adults and with completely developed epilepsy. There are, of course, certain childien who frequently have nightmare from indigestion or a fright experienced during the day, but these are only occasionally affected, and comparatively mildly so as regards the concomitant mental disturbance.

When a child is brought to the physician with true night terrors or nocturnal *petit mal*, we generally find the following history : The patient goes to bed apparently perfectly well and as bright as usual, sleeps soundly until the night has progressed to some extent, and then rises up in bed and utters a shriek of the most heart-rending character, which may or may not arouse the child to consciousness. The eyes are wide open and staring, and show by their widely dilated pupils the severity and intensity of the alarm from which the little one is suffering. The face is generally pale and tearless. The parents as they come to the child are clutched and drawn down to the bed by the frightened little one, who trembles, cries, and refuses to be comforted, often crying out that it sees some fearful beast, or begs that some distorted image of the imagination be taken away. A horrible, indefinable dread seems to blot out, as fast as spoken, all the quieting, endearing terms of the parents, and even the casual bystander looks about the room for the fearful object to which the child points in so realistic a manner. Slowly, amid choking sobs, the child becomes pacified, and passes off into sleep by slow degrees, interrupted by frequent starts or sighs of a more pronounced character than the other. The restless slumber now

deepens, and may last until morning, or be followed by a repetition of the attack in a few hours. The final history of all such cases ends in epilepsy proper, preceded by a lack of vivacity or momentary clouding of the intellect during the day, as the disease extends from the night to the day-time.—*Hobart Amory Hare, M.D., in prize-essay on Epilepsy; F. A. Davis, publisher.*

[It was with the view that night terrors resembles symptoms seen in epileptics, that Trousseau's method of using belladonna in epilepsy was tried in a severe and protracted case of night terrors. After other means had failed, there were given the four-year old boy five drops of tincture of belladonna at night. The dose was increased one drop each night until ninety drops were given at once. The boy's father was very persistent and exact. Not one severe attack occurred after beginning the belladonna. When no symptoms whatever of the nervous trouble had appeared for more than two months, the dose was decreased ten drops each night. The relief had been very nearly immediate, and there was never any return of the trouble.—L. H]

In Dysmenorrhœa all the common forms, particularly the congestive type from which girls and young women so frequently suffer, antipyrin is the best means of relief I have ever employed. I commonly prescribe a powder of 15 grains of antipyrin with one sixth grain of morphine, one powder often sufficing for each menstrual epoch. Given as soon a pain is felt, it ordinarily quite averts the customary suffering, and the period is passed in comfort.—*Kansas Med. Jour.*

Our Public Schools.—Do not the methods of teaching in our public schools need to be overhauled? The dominating idea seems to be that it is the province of the public school to teach children a little of every thing, but not much of any one thing, and nothing thoroughly. The pupils are crammed with a superficial knowledge of nearly a score of different studies, without an ability to write a sentence in the English language correctly. This is a grievous fault in our system of common school education; it overdoes the business in such a way that minds are made weak instead of strong. What children need is, not to learn so *much*, as to learn a few things *well*, and while acquiring such knowledge to learn to think for themselves. The higher branches they can learn afterwards. It will be time to rear the superstructure after the foundations are laid. The hot-bed system of education tends to mental weakness rather than strength. A people brought up under such a system will be a feeble folk, instead of having the robust strength which comes from the clear-headed common-sense of our fathers.—*N. Y. Evangelist.*

Albany Medical Annals.

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LORENZO HALE, M.D., A. VANDER VEER, M.D., F. C. CURTIS, M.D.
W. J. NELLIS, M.D., W. G. MACDONALD, M.D.

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THE ALBANY MEDICAL ANNALS AND ITS WORK.

The proposition to establish a Medical Department in the New York State Library, which has received unanimous approval from the medical profession, and substantial endorsement on the part of the Albany Medical College by its gift to the State Library of 5,000 volumes, would probably never have been put in operation, and possibly never have been made at all, had it not been for the *Albany Medical Library and Journal Association*; and this *Library Association*, in turn, owes its existence wholly to the ALBANY MEDICAL ANNALS As this new Medical Library will receive from the *Library Association* all the exchanges and volumes which have accumulated during the three years of its existence, and several thousand volumes from private libraries donated by individual physicians, it has a good nucleus at the very beginning, and of course will constantly grow by the addition of the newest publications Space for the books will soon be assigned in the Capitol at Albany.

Although our *Library Association* has accomplished its mission and has disbanded, and its publishing committee ends its official duty by the issue of this December number, yet the ALBANY MEDICAL ANNALS will still continue to be the exponent of the medical profession of this part of the world, and to be, as heretofore, the representative of the alumni of the Albany Medical College.

The Alumni Association will, in 1891, publish the ANNALS as its official organ, under the exclusive management of the junior member of the present publishing committee, Dr. W. G. Macdonald (A. M. C., '87), editor.

Three members of the retiring committee have been identified with the ANNALS from its inception, eleven years ago. They have done the pioneer work in a clean and honorable manner. They have rejected questionable advertisements in the face of golden temptations. They have published many interesting communications from our alumni, and from other physicians, in widely separated parts of the globe.

A most important influence of the ANNALS has been to manifestly increase the warm spirit of brotherhood among our alumni, and, by adding to the mutual acquaintance and respect of physicians, to contribute to the peace and concord of the medical profession in this vicinity.

On retiring from the front, the committee commend our new editor to our alumni and to the whole profession, as worthy of the same courtesy and consideration which has always been accorded to the management of the ANNALS, and are gratified to be able to commit to his trust a journal now in its twelfth year, established on an enduring basis, which presumably will continue to receive an ever-increasing patronage as long as physicians are in practice, and as long as alumni of the Albany Medical College multiply.

BOOKS THAT BECOME CLOSE COMPANIONS.

Probably there are few practical surgeons who can calmly survey the shelves of their libraries and say that they have read fully every chapter of the books contained thereon, and yet these same active practitioners will tell you of a particular portion of some one work from which they have obtained valuable aid in their practice From these books they have learned truths which remained, and which it was not necessary to unlearn in one, two or three years, from the publication of some work in which the author is able to demonstrate that all was wrong in the teaching, as set forth by some other author.

Among such a class of books as leave behind them, after careful study, some valuable impression, and, following which, success attends one's practice, we would place "The Principles and Practice of Surgery," last edition, by John Ashurst, Jr., M.D ; Lea Brothers & Co., publishers, Philadelphia, as well as "Hamilton's Surgery," published by Wm. Wood & Co., New York. More especially would we call attention to that valuable work, "Dictionary of Practical Surgery," by Christopher Heath; Lippincott & Co., New York, which contains a mine of valuable suggestions. While these are

books that do not contain all that pertains to the technique of modern surgery, yet they would be very much missed in consequence of their containing so many valuable thoughts of men who have, after mature judgment and much reading, condensed in full their own experience, together with the practical suggestions of many other writers, giving to the profession that which must ever remain solid, substantial instruction. Therefore, we feel justified in saying that in the midst of all that is being published new and exceedingly valuable, we have yet these text books to rely upon, and to recommend to the present and future practitioner of the art of surgery. A. V.

BOOK NOTICES.

THE MEDICAL STUDENT'S MANUAL OF CHEMISTRY. By R. A. WITTHAUS, A M, M.D., Professor of Chemistry and Physics in the University of the City of New York, etc. Third Edition, pp. xii, 528, 8vo, $3.75. New York: William Wood & Co. 1890.

Seven years ago the first edition of Prof. Witthaus' Manual made its appearance, and the excellence of the plan on which it was conceived and the admirable style in which the book was written secured for it at the outset a warm welcome. The work has been a favorite with both instructors and students, and from the fact that it has passed to a third edition we may infer that it has had a large sale and is still in good demand. It is certainly deserving of success, for it is well arranged, clearly written, and exceedingly comprehensive for a student's manual. In preparing the present edition, many and important changes have been made, though the general arrangement and classification of the earlier editions have wisely been retained. Such changes have been made as the advances of science have rendered necessary in the departments of chemical physics and inorganic chemistry, but it is chiefly in the latter part of the book, dealing with the chemistry of the carbon compounds, that the most important, extensive and radical alterations are to be observed. Indeed, this portion of the book has been greatly extended and in large part re-written, and we think that Dr. Witthaus is entirely correct in saying that "the prominence given to this branch of the subject the author believes to be justified by reason of the intimate connection of organic chemistry with physiology and with modern pharmacy, and the rapidly increasing use of complex organic products, natural and synthetic, as medicines." The student will find all the newer additions to the organic materia medica assigned to their proper places and appropriately treated, and as the book is

well indexed, these new remedies may be found by any of their synonyms. Considerable space is given to toxicology, urinary analysis and physiological chemistry, and the book as a whole is well adapted to the needs not only of the student, but of the practitioner of medicine. The short chapter on laboratory technichs is not the least valuable part of the work, especially for those students who have had little laboratory practice under an instructor.

The author has adopted the orthography of certain chemical terms as recommended by a committee of the Chemical Section of the American Association for the Advancement of Science, the report of which committee, made at the Toronto meeting in 1889, he prints in full in an appendix. "Chlorin" and "oxid" and "iodid" have certainly an odd look, but doubtless such spellings will come into general use among chemists, in America at least, in the near future. We regret, however, to see that the author has retained the unnecessary "i" in *aluminium*.

The manual is handsomely printed on fine paper, though we could have wished that a larger faced type had been employed, even at the sacrifice of the width of the margins. The numerals below the line in the chemical formulæ are especially small and better adapted to young than to old eyes. The illustrations are not numerous, but they are well selected and amply serve their purpose. We bespeak for this new edition of Dr. Witthaus' book a continuation of the patronage which its predecessors have received. W. G. T.

A Manual of Modern Surgery. For the Use of Students and Practitioners By John B. Roberts, A.M., M.D. Philadelphia: Lea Bros. & Co.

This work is one that presents an innovation in the writing of books that ought to receive the endorsement of all careful workers in the practice of surgery. The transmitting of old, useless theories from one edition to another, as is too often observed in standard works and in the making of new books, has met with a just condemnation, although the author does not allude to it in his preface in any way whatever. He states, "I have endeavored to write a practical work," and he has certainly succeeded in the best manner possible. He has brought to the attention of the busy practitioner, all that pertains to modern surgery, and that is saying a great deal. He has presented it in such a way as to make it intensely practical, and the book is one that should command the attention of every surgeon throughout this country and abroad. The illustrations are of the very best, and they are selected in a manner that indicates the author is fully abreast of the times, and possessed of the keenest judgment. It is a book that one delights to read, study and consult; it gives a freshness to one's thoughts, and makes one feel more contented in the practice of surgery. A. V.

BACTERIOLOGICAL TECHNOLOGY FOR PHYSICIANS. By C. J. Salomonsen. Authorized translation from the second revised Danish edition, by William Trelease. New York: William Wood & Company.

The translator, in his preface, states, "So many works on bacteriology are now accessible, that a new one must possess decided merit to justify its appearance." Surely the merit of this work justifies its appearance beyond a doubt The increased size of this new edition, justly illustrates "the active development of bacteriology in the last few years" The teacher of surgery as well as the practical surgeon, has, in this work, much to repay him for the hours of study that he must necessarily give to a subject that he should become conversant with, in order to understand fully the surgical pathology of to-day. The work is to be earnestly commended. A. V.

MEDICAL NEWS.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The officers of this Society are actively at work preparing for the next annual meeting, which will be held in Albany on Tuesday, Wednesday and Thursday, February 3, 4 and 5, 1891. The indications are that this will be a most interesting and profitable meeting, from a scientific standpoint, as a number of papers of more than ordinary interest have already been offered. The conspicuous prominence that the Society holds with reference to reform in medical education, and the important action to be taken with regard to the State Board of Medical Examiners, insure a full representation from county societies.

DR. H. R. STARKWEATHER.

Dr. Herbert R. Starkweather ('71), after several years of declining health, died on Thursday, November 27, at his home, No. 234 Central avenue, Albany. He was born in Montgomery county, June 11, 1850. He held several public offices in Albany, including supervisor, city and coroner's physician and penitentiary surgeon. Burial was in Worcester, Otsego county.

The Medical Society of the County of Albany held a special meeting to take action on the death of Dr. Starkweather, December 10, 1890.

A committee was appointed to draft resolutions expressing the sentiment of the Society, and the following were reported:

WHEREAS, The Great Architect of the universe having taken from our midst our esteemed associate, H. R. Starkweather, M.D., it is hereby

Resolved, That in humble submission to the Divine Will, we, the members of the Albany County Medical Society, deplore the loss we have sustained in the death of a worthy member.

Resolved, That we extend our sincere and heartfelt sympathies to the widow and family of our deceased colleague, in this their great affliction.

Resolved, That these resolutions be placed on the records of this Society, and also that a copy of the same, duly attested by our secretary, be presented to the family of Dr. H. R. Starkweather.

W. H. Murray,
G. L. Ullman,
S. G. Shanks.

PERSONAL.

—Dr. Charles G. Briggs ('89) recently on the house staff of St. Peter's Hospital, has located in Gloversville, N. Y.

—Dr. Howard Simmons Paine ('81), of Albany, was married Wednesday, November 26, in the Friends Meeting-house at Glens Falls, to Miss Sarah, daughter of J. W. Potter, of Glens Falls.

—Dr. J. Montgomery Mosher ('89) who has been assistant physician at Willard Asylum ever since graduation, is appointed resident physician of the Ogdensburgh State Hospital, from the eligible list of the civil service commission.

—Dr. Thomas H. Willard ('87), of New York city, formerly of Albany, and Miss Jessie Wade Hayes, daughter of Mr. and Mrs. T. G. Hayes, No. 22 Irving place, Albany, were married in All Saints' Cathedral, Wednesday, November 26.

—Dr. Archibald O. Ameden, of Glens Falls, died of heart disease, Friday, November 28, at midnight, in his office, aged about 50 years. He had been health officer for several years. His experimental and clinical investigation of rattlesnake venom have brought his name prominently before the public.

—Dr. Arthur G. Root ('90) has been pursuing a special study of the nose and larynx at Vienna, Berlin and Paris, and is now enjoying excellent opportunities at the Golden Square Throat Hospital, under Sir Morell Mackenzie, London. Reports of cases treated by Koch's lymph, under Dr. Root's observation, are received, and will appear in the January Annals.

—Dr. E. E. Larkin ('85), Albany, has moved from 27 Eagle street to 47 Eagle street. Dr. Larkin returned December 12, with greatly improved health, from a sixty-four days' cruise in the tropics. He touched at various points, including St. Thomas, Pernambuco, Rio Janeiro, sailed through the river Para and several hundred miles up the Amazon, etc., and traversed in all about 18,000 miles.

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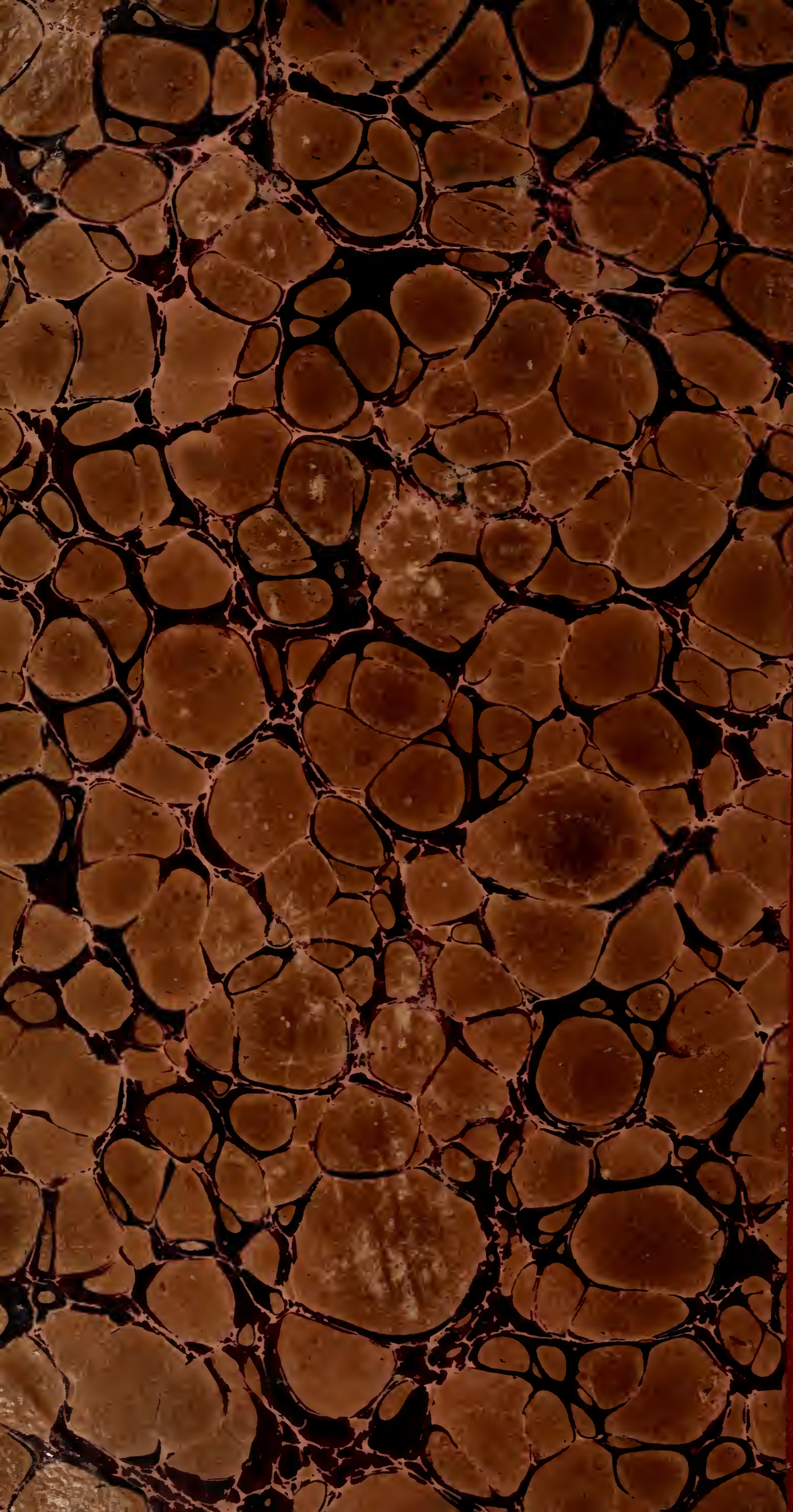
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